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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

JANUARY, 1972
VOLUME 69, NUMBER 1

For Every
Member!
1972 MSMA
**PUBLIC
AFFAIRS
CONFERENCE**
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and
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April 6-9, 1972, Kansas City

IF MORE MEN CRIED

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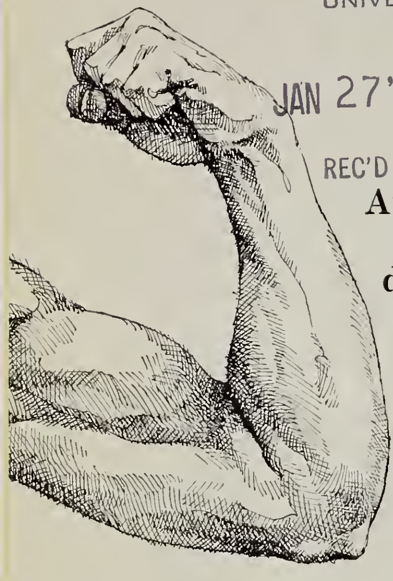
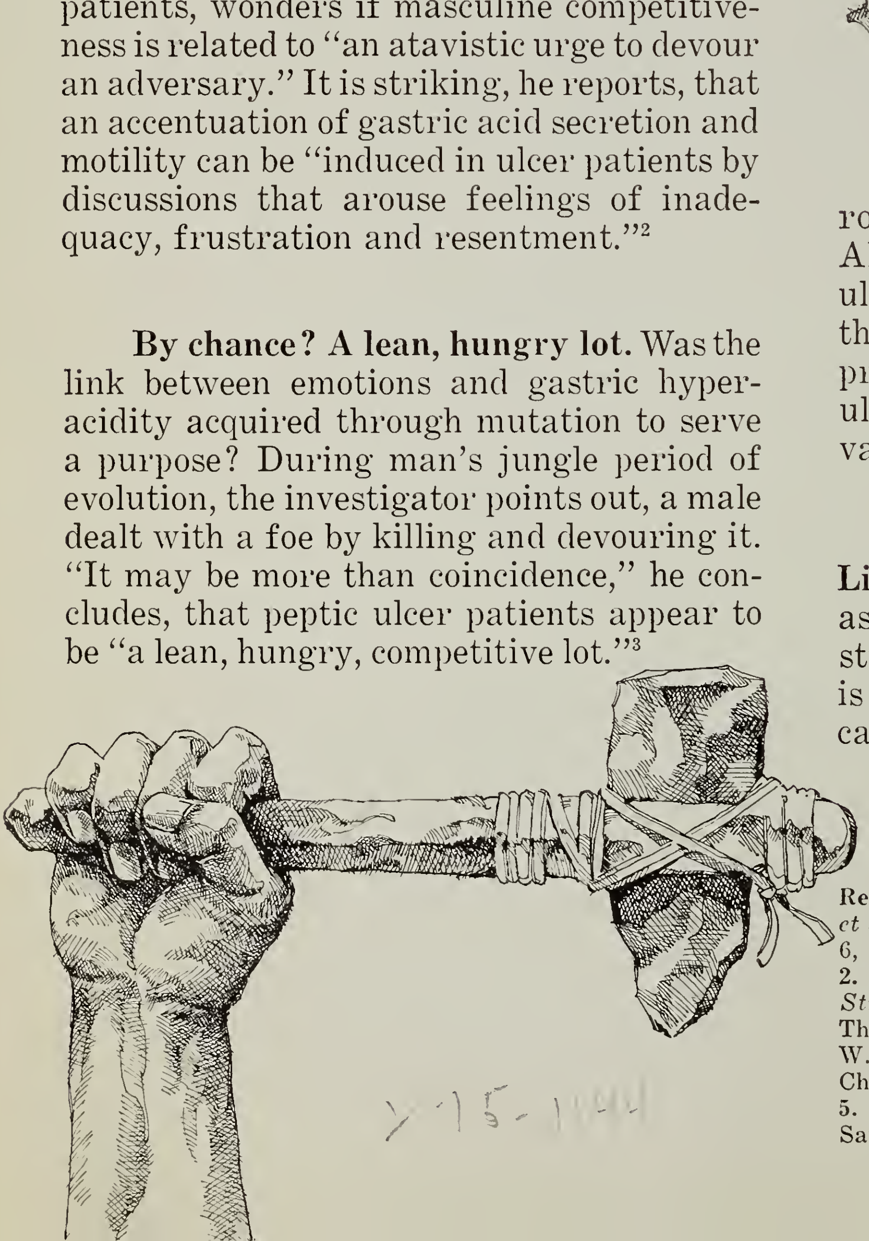


At least seventy-five out of one hundred adults with duodenal ulcers are men.[1] Why? It may be significant that duodenal ulcer patients tend to crave recognition and are "especially vulnerable to threats to their manly assertive independence."[2]

Hypersecretion—an atavistic response. Stewart Wolf, who, with Harold G. Wolff, studied the personalities of duodenal ulcer patients, wonders if masculine competitiveness is related to "an atavistic urge to devour an adversary." It is striking, he reports, that an accentuation of gastric acid secretion and motility can be "induced in ulcer patients by discussions that arouse feelings of inadequacy, frustration and resentment."[2]

By chance? A lean, hungry lot. Was the link between emotions and gastric hyperacidity acquired through mutation to serve a purpose? During man's jungle period of evolution, the investigator points out, a male dealt with a foe by killing and devouring it. "It may be more than coincidence," he concludes, that peptic ulcer patients appear to be "a lean, hungry, competitive lot."[3]



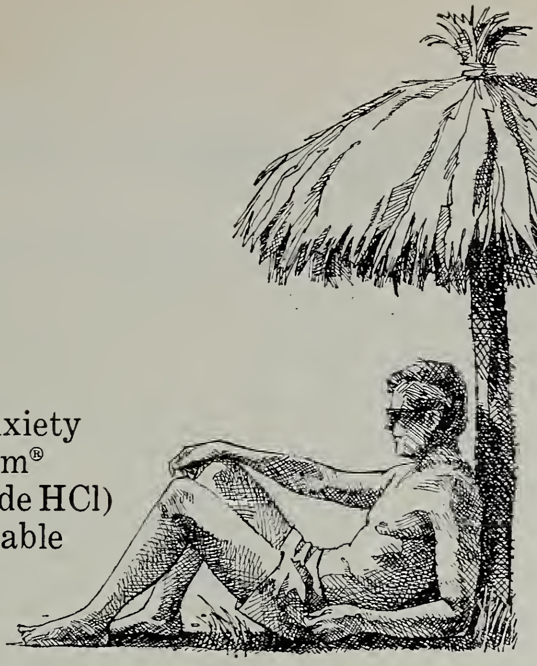
Big boys don't cry. If more men crie maybe fewer would wind up with duoden ulcers. But men will be men—the sum total their genes and what the are taught. Schottstae observes that when mother admonishes he son who has hurt himse that big boys don't cry, sh is teaching hi stoicism.[4] Crying is th negation of everythin society thinks of as manl A boy starts defending h manhood at an early ag

**Take away stres
you can take away symptom**

There is no question that stress plays role in the etiology of duodenal ulce Alvarez[5] observes that many a man with a ulcer loses his symptoms the day he shuts u the office and starts out on a vacation. Th problem is, the type of man likely to have a ulcer is the type least likely to take lon vacations or take it easy at work.

The rest cure vs. the two-way action o Librax.® For most patients, the rest cure as unrealistic as it is desirable. Still, th stress factor must be dealt with. And her is where the dual action of adjunctive Libra can help. Librax is the only drug that con

References: 1. Silen, W.: "Peptic Ulcer," in Wintrobe, M. M et al. (eds.): *Harrison's Principles of Internal Medicine,* e 6, New York, McGraw-Hill Book Company, 1970, p. 14 2. Wolf, S., and Goodell, H. (eds.): *Harold G. Wolf Stress and Disease,* ed. 2, Springfield, Ill., Charles Thomas, 1968, pp. 68-69. 3. *Ibid.,* p. 257. 4. Schottstae W. W.: *Psychophysiologic Approach in Medical Practi* Chicago, Ill., The Year Book Publishers, Inc., 1960, p. 1 5. Alvarez, W. C.: *The Neuroses,* Philadelphia, Pa., W. Saunders Company, 1951, p. 384.



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ction of Librium®
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ient—with your guidance—will have to ad-
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laily can help establish a desirable environ-
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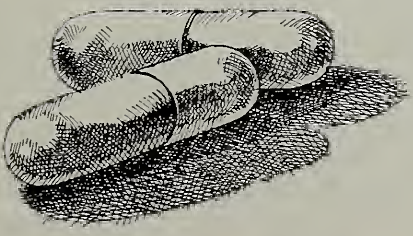

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Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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Missouri Medicine

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MISSOURI GENERAL ASSEMBLY SESSION OPENS IN JANUARY

It will be a new ball game in Jefferson City in January, when for the first time in Missouri history the General Assembly convenes in a regular session in an even-numbered year.

The 1972 regular session was made possible by a Constitutional change approved by Missouri voters in 1970 which called for annual sessions of the Missouri Legislature. In the past few years there have been special sessions held in even-numbered years but the General Assembly could only work on legislation proposed by the Governor. There is no limit on legislation now.

Another new feature for 1972 is the pre-introduction of bills during the month of December. Members of the General Assembly were busy during December introducing measures which will be considered during 1972. More than 350 bills had been introduced by mid-December.

Still in doubt is the fate of bills introduced in 1971 and still not acted upon at the end of the Legislative session. The House and Senate apparently are taking different approaches to the subject and as of mid-December there was no answer to the question of the fate of such bills.

Many legislators, apparently to be on the safe side, were reintroducing bills in December, even if these measures had been left on calendars or in committee at the end of the 1971 session.

The 1972 session will be a month shorter than the 1971 session. The Legislature is scheduled to adjourn on May 15. In 1971 the session lasted until June 15.

One question which is unanswered concerns the attitude of committees of both Houses when they consider bills which they either approved, approved in amended form or killed during the 1971 session and which are assigned to them again in 1972.

A number of bills of interest to the medical profession were introduced early in the month of December.

Among these were:

House Bill 1032 would provide a $4,000 per year subsidy for Missouri students attending the two private medical or Osteopathic schools. A similar bill lost in a close vote in the House in the 1971 session.

House Bill 1053 seeks to change the statute of limitations in malpractice cases. Under this bill the statutes would run five years from the act in all cases other than those involving foreign bodies. Foreign body cases would be two years from discovery. Bill is same as House Committee Substitute which passed House in 1971 session.

House Bill 1087 would establish a 24-member Advisory Council on Alcoholism and Drug Abuse to set up a program of treatment. House Bill 1089 would establish a comprehensive program for the treatment of narcotic addicts, alcoholics and drug dependent persons at a cost of $1 million yearly.

House Bill 1093 would allow chiropractors to use physiotherapy including light, sound, heat, cold, water or exercise; apply first aid and hygiene. This bill contains the same wording as a House Committee Substitute developed by the House Public Health Committee in 1971. This substitute bill was on the House perfection calendar at the end of the 1971 session.

House Bill 1100 and Senate Bill 425 would establish a separate division of mental retardation within the state department of public health and welfare, taking these services away from the present Division of Mental Health. It would be administered by a five-member board appointed by the Governor with confirmation by the Senate.

House Bill 1034 adds mumps and rubella innoculation to the list of school requirements in Missouri.

Senate Bill 436 seeks to lower the percentage of alcohol in the blood in determining whether or not a driver was intoxicated.

PLAN AWARDS FOR NEWS MEDIA

The Missouri State Medical Association has announced awards competition for newspapers, television stations and radio stations in Missouri in the field of medical and health reporting.

First such awards will be presented in April of this year at the 114th Annual MSMA Session for winners in 1971 competition. $150.00 will be awarded to the winner in each category.

Entries in the competition will be considered for accuracy, significance, quality, public interest, creativity and impact.

Newspaper entries may include a news story, feature story, series or editorial which appeared in a Missouri paper of general circulation published at least once a week.

The television award will be for reporting on medicine or health on a Missouri station. The radio award will be for reporting on medicine or health on a Missouri radio station.

Missouri physicians are urged to suggest to their local media that suitable material published or broadcast concerning medical or health be entered in the competition.

MSMA
News

Public Affairs Conference on January 29-30

All members of the Missouri State Medical Association are being invited to attend the Public Affairs Conference which will be held on Saturday afternoon and evening, January 29 and Sunday morning, January 30 at the Ramada Inn, Columbia.

Copies of the program along with a pre-registration blank have been sent to all members of the Association. The program is also reproduced on Page 5 of this, the January, 1972 issue of MISSOURI MEDICINE. A pre-registration blank is also included on this page for those physicians who will be attending and who have not used the form included with the program.

The program gets underway at 1:55 p.m., Saturday with a welcome by President Gerald L. Miller of Kansas City. The program continues through the afternoon and a question and answer session will be a part of the social hour starting at approximately 5:00 p.m.

A banquet on Saturday evening will feature Hoyt Gardner of Louisville, Kentucky, Chairman of the American Medical Political Action Committee.

Sunday morning's activities will open with a buffet breakfast from 7:30 until 9:00 a.m.

Speakers have been scheduled from 9:00 a.m. until 11:00 a.m. with a question and answer session starting at 11:00 and continuing until adjournment. Morning program participants will be included in this session as well as Dr. Gardner.

Overnight reservations should be made directly with Ramada Inn, Columbia.

Physician Fee Limitations Are Seen as 'Discriminatory'

The American Medical Association has urged physicians to act in accordance with Price Commission regulations concerning medical fees but at the same time pointed out that there are "certain discriminatory aspects" in these regulations.

The Federal Price Commission ruled that physicians' "aggregate price increase shall not exceed 2.5% per year," they must be justified by increases in costs, and the physician's profit margin as a percentage of revenues, before income tax, may not increase at all.

The AMA's comment was in a statement issued following the Price Commission's announcement of its proposed guidelines.

"Though we have not seen the official regulatory language," the AMA said, "the guidelines for physicians' fees appear to single out health care providers for some regulatory controls that are not applied to other providers of services. It violates the principles of equal treatment and fair play to impose special burdens on small segments of the population – in this case, physicians, dentists, osteopaths and other non-hospital providers of health service.

"Generally, all providers of service are permitted to pass through documented, legitimate increases in the cost of doing business. Except for very large corporations, advance approval is not required.

"However," the AMA statement continued, "the guidelines as we understand them provide no avenue to physicians whose increased costs require more than a 2.5% adjustment in fees. Hopefully, such relief may be available in official regulations. But at best physicians whose costs may justify increases over the 2.5% guidelines will have to apply for approval in advance while providers of services outside of the health care field are subject to no similar restraints. We question why such requirements are imposed upon physicians, especially when physician income accounts for only 13 cents of the health care dollar."

The Price Commission, in approving the recommendations of its 21-member Committee on the Health Services Industry, said it will require the individual physician to maintain a price schedule showing changes and a prominently placed sign notifying the public that the schedule is available for inspection.

The AMA, commenting on the fee schedule section of the regulations pointed out: "Maintaining a fee schedule and having it available is one thing. But a possible requirement for having such a schedule 'posted' would probably be detrimental to the personal relationship that exists between doctor and patient. Fee-posting may be somewhat academic in any event, for few patients choose their physician on the basis of fees. They are more interested in his skills and quality of care."

**Public Affairs
Conference**

January 29-30, 1972

**MAIL TO:
Missouri State Medical Assn.
Box 1028
Jefferson City, Mo. 65101**

Please register me for the Public Affairs Conference of the MSMA, January 29-30, 1972, The Ramada Inn, Columbia, Mo.

Name ____________________

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Every MSMA Member Is Invited to the MSMA 1972

Public Affairs Conference

January 29-30, 1972 Ramada Inn, Columbia

The 1972 Public Affairs Conference of the Missouri State Medical Association is the successor to the County Society Officer's Conference which has been held the past four years. The Conference has been designed to inform Missouri physicians about the many problems and issues facing medicine today.

All members of the Missouri State Medical Association are invited and urged to attend this meeting so that they may learn about the issues which are facing professional medicine.

SATURDAY, JANUARY 29, 1972

1:00-1:55 PM Registration

1:55 PM Welcome
Gerald L. Miller, M.D.
Kansas City, President, MSMA

2:00 PM **Health Care Delivery Philosophy**
Lawrence W. O'Neal, M.D.
President, St. Louis Medical Society

2:15 PM **Neighborhood Health Care Centers and Their Relationship to Overall Health Care Delivery System**
Rodney Coe, Ph.D.
Department of Community Medicine, St. Louis University

2:30 PM **SAMA, Its Aims and Objectives and Relationship to Organized Medicine**
SAMA Representative

2:45 PM **The Foreign Physician and His Integration Into the U. S. Health Care System**
Ivan Zahony, M.D.
Kansas City

3:00 PM Coffee Break

3:15 PM **The Health Care Foundation of Missouri**
Hector W. Benoit, Jr., M.D.
Kansas City, Chairman, Health Care Foundation

3:35 PM **A Look at Physician Assistant Programs**
John Dillon, M.D.
School of Medicine, University of California at Los Angeles

4:00 PM **Improving Relations Between Physicians and the News Media**
Mr. Jim White, Assistant News Director, KMOX radio, St. Louis
Mr. Dale Freeman, Managing Editor, Springfield Newspapers
Mr. Philip Brimble, Science-Medical Editor, *The Kansas City Star*

5:00 PM Question and Answer period featuring all afternoon session program participants at social hour.

6:30 PM Banquet
Speaker—
Hoyt Gardner, M.D.
Louisville, Kentucky
Chairman, American Medical Political Action Committee

SUNDAY, JANUARY 30, 1972

7:30-9:00 AM Buffet Breakfast

9:00 AM **The Missouri Legislative Situation**
John I. Matthews, M.D.
Jefferson City
Chairman, MSMA Legislative Affairs Committee

9:20 AM **National Legislative Situation**
Tim Norbeck
St. Louis
AMA Field Service

9:40 AM **Emergency Medical Care Needs and Proposals in Missouri**
Allen Klippel, M.D.
St. Louis County
Chairman, Ad Hoc Committee on Emergency Medical Care

10:00 AM **National Health Insurance Outlook**
Hubert A. Ritter, M.D
St. Louis
Member of AMA Speakers Bureau

11:00 AM Question and answer session featuring all morning program participants as well as banquet speaker Doctor Gardner

(Tickets for Banquet and Sunday Buffet Breakfast will be on sale at the Registration Desk.)

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Illustrations should be glossy prints or drawings in India ink on white paper. They should not be mounted and name of author and figure number should be penciled lightly on the backs. Legends should appear on a separate sheet. Colored illustrations will be used when suitable if author assumes the actual cost.

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All material other than scientific should be received prior to the first of the month preceding month of publication.

Please give notice of change of address at least one month in advance of the change, giving old and new addresses.

Preliminary Program

114th Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

Muehlebach Hotel, Kansas City **April 6-9, 1972**

Thursday, April 6

11:00 AM Registration of Delegates.
1:30 PM House of Delegates Meeting, opening session.
3:30 PM Reference Committee Meetings.

Friday, April 7

8:00 AM Registration.
9:00 AM General Session. *Peer Review.*
Moderator: Hector W. Benoit, Jr., M.D., Kansas City.
(Participants to be announced.)
Sponsored by the Health Care Foundation of Missouri.
10:30 AM Intermission to view exhibits.
*11:00 AM *Abdominal Trauma*
Moderator: Andrew McCanse, M.D., Kansas City.
Panel Participants:
  Andrew McCanse, M.D., Kansas City
  W. Kendall McNabney, M.D., Kansas City
Sponsored by Missouri State Surgical Society.
*11:00 AM *Symposium on Cardiovascular Disease.*
(Participants to be announced.)
Sponsored by the Missouri Society of Internal Medicine and the Missouri Chapter, American College of Physicians.
*11:00 AM *Symposium on Gastrointestinal Disease.*
(Participants to be announced.)
Sponsored by the Missouri Society of Internal Medicine and the Missouri Chapter, American College of Physicians.
*11:00 AM *Perinatal Mortality Conference.*
Moderator: William C. Mixson, M.D., Kansas City.
  Panel Participants:
    Richard A. Guthrie, M.D., Columbia.
    Robert C. Rosan, M.D., St. Louis.
    Robert L. Newman, M.D., Kansas City.
Sponsored by the Missouri Obstetrical and Gynecological Society.
*11:00 AM *Hyperactive Child—Diagnosis and Treatment.*
(Moderator and Panel Participants to be announced.)
Sponsored by Missouri Academy of Psychiatry.
12:30 PM Missouri University Alumni Luncheon.
Missouri Obstetrical and Gynecological Society Luncheon.
  James P. Youngblood, M.D., Kansas City, will present the Maternal Mortality Report.
* 2:00 PM *Abdominal Trauma.* (Continued)
Moderator: Lawrence Evans, M.D., Kansas City.
  Panel Participants:
    John A. Collins, M.D., St. Louis.
    John Ochsner, M.D., New Orleans, La.
Sponsored by Missouri State Surgical Society.
* 2:00 PM *Symposium on Endocrinology.*
(Participants to be announced.)
Sponsored by the Missouri Society of Internal Medicine and the Missouri Chapter, American College of Physicians.

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* Concurrent Sessions.

* 2:00 PM *Symposium on Neurology.*

(Participants to be announced.)

Sponsored by the Missouri Society of Internal Medicine and the Missouri Chapter, American College of Physicians.

* 2:00 PM *Suicide and Depression.*

Moderator: Edwin D. Wolfgram, M.D., St. Louis.

Participants:

George Winokur, M.D., Head of the Department of Psychiatry, State University of Iowa School of Medicine.

Sponsored by the Missouri Psychiatric Association.

* 2:00 PM *Symposium on Asthma, Diagnosis and Treatment.*

(Participants to be announced.)

Sponsored by Missouri State Allergy Association.

3:30 PM Intermission to view exhibits.

4:00 PM House of Delegates, second session.

5:30 PM Missouri State Medical Foundation Annual Meeting.

6:00 PM Reference Committee Meetings.

6:00 PM Dinner Meetings:

- Missouri Academy of Psychiatry
- Missouri Radiological Society
- Missouri State Allergy Association
- Missouri Federation of Urologists
- Missouri Psychiatric Association—Guest Speaker, Edward Busse, M.D., President, American Psychiatric Association.
- Missouri State Surgical Society—Top of the Tower, *Surgical Intensive Care,* John Collins, M.D., St. Louis.

Saturday, April 8

8:00 AM Registration.

9:00 AM *Comparative Costs of Medical Care.*

Moderator: Lawrence W. O'Neal, M.D., St. Louis.

Participants:

The Patients' Costs of Care, Direct and Indirect, Mr. Paul Sanders, Consultant on Neighborhood Health Centers, ARCH, St. Louis.

Contracting, Negotiating, and Licensing Delivers the Dollars to the High Cost Systems and Retards Ambulatory Care Center Growths, Dr. O'Neal.

If Ambulatory Centers Develop, Hospital Costs Will Rise, C. O. Vermillion, M.D., St. Louis.

The Difference in Cost of the Same Care Described in Terms of Results, Richard Danis, M.D., St. Louis.

10:30 AM Intermission to view exhibits.

*11:00 AM *Pulmonary Problems in Surgical Patients,* Gerald F. Tuohy, M.D., St. Luke's Hospital, Kansas City.

Coronary By-Pass Operations, William A. Reed, M.D., St. Luke's Hospital, Kansas City.

Moderator: Hugh E. Stephenson, M.D., Columbia.

Sponsored by Missouri State Surgical Society.

*11:00 AM *Symposium on Infectious Disease.*

(Participants to be announced.)

Sponsored by Missouri Society of Internal Medicine and Missouri Chapter, American College of Physicians.

*11:00 AM *Symposium on Pediatric Urology.*

Jointly sponsored by

Missouri Federation of Urologists, Missouri Radiological Society and Missouri Chapter, American Academy of Pediatrics.

Panel Participants:

Thomas M. Holder, M.D., Kansas City, Kansas.

(Additional speakers to be announced.)

*11:00 AM *Symposium on Carotid Occlusive Disease,* Thomas P. Kearns, M.D., Mayo Clinic, Rochester, Minn.

Moderator: Robert C. Drews, St. Louis.

(Other Participants to be announced.)

Sponsored by Missouri Ophthalmological Society, Inc.

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* Concurrent Sessions.

12:30 PM MSMA General Luncheon—Program and Speaker to be announced.
Fifty-Year Club Luncheon.
Missouri Ophthalmological Society, Inc., Luncheon.
Missouri Association of Neurological Surgeons Luncheon.

* 2:30 PM *Health Maintenance Organizations (HMO's).*
Moderator: William D. Hoadley, M.D., Kansas City.
Participants:
Research, Development and Operation of HMO, C. Stanley Custer, M.D., Marshfield Clinic, Marshfield, Wis.
Federal Viewpoint, Holman R. Wherritt, M.D., Regional Health Director, Department of HEW, Kansas City.

* 2:30 PM *The Retinopathy of Sarcoidosis,* Thomas P. Kearns, M.D., Mayo Clinic, Rochester, Minn.
Moderator: Robert C. Drews, M.D., St. Louis.
Sponsored by Missouri Ophthalmological Society, Inc.

4:00 PM Intermission to view exhibits.
5:00 PM St. Louis University Medical Alumni Cocktail Party.
5:00 PM Washington University Medical Alumni Cocktail Party.
6:30 PM Social Hour for those Attending Banquet.
7:15 PM Annual Banquet in Honor of Past-Presidents.

Sunday, April 9

7:30 AM House of Delegates, breakfast and final session.

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* Concurrent Sessions.

MEETINGS TO BE HELD IN CONJUNCTION WITH THE MSMA 114TH ANNUAL SESSION

(**Please Note:** Although the following meetings are a part of the MSMA Annual Session program, they are printed separately for clarity. All members of the MSMA are invited to attend the following meetings.)

Annual Meeting

MISSOURI DERMATOLOGICAL SOCIETY, INC.

Saturday, Sunday, April 8-9, 1972

This annual meeting will be held in conjunction with the Missouri State Medical Association Annual Session. (Saturday session—Burgundy Room, Muehlebach Hotel. Sunday session—Kansas City General Hospital.)

MISSOURI SOCIETY OF PATHOLOGY*

Program on Medical Genetics

Saturday, April 8, 1972

8:00 AM Registration—Towers 21-22. Registration Fee, $10.00.
9:00 AM *Introduction and Molecular Biology,* Raymond J. Caffrey, M.D., Pathologist, Research Hospital, Kansas City.
9:30 AM *Classical Genetics (Mendelism),* Harold E. Cross, M.D., Ph.D., Resident and Fellow in Ophthalmology, Wilmer Institute, Johns Hopkins Hospital.
10:15 AM Coffee Break.
10:30 AM *Recessive Disease,* R. Rodney Howell, M.D., Associate Professor of Pediatrics, Johns Hopkins Hospital.
11:15 AM *Dominant and Multifactorial Disease,* Harold E. Cross, M.D.
12:00 NOON Lunch.
1:30 PM *Chromosomal Disease,* Raymond J. Caffrey, M.D.
2:15 PM *Laboratory Aspects of Genetic Disease Including Use of Amniocentesis,* R. Rodney Howell, M.D.
3:00 PM Coffee Break.
3:15 PM *Laboratory Aspects . . .* (Continued).
3:45 PM *Genetic Counseling and Future of Medical Genetics,* Harold E. Cross, M.D.
4:30 PM Panel Discussion.

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* In cooperation with the Missouri State Medical Association and supported in part by the National Foundation—March of Dimes.
Registrants who are members of the Missouri Society of Pathology, as well as non-members, are invited to register for the MSMA Meeting without charge at the MSMA Registration Desk in the Royal Hall.

First Annual Convention

MISSOURI PSYCHIATRIC ASSOCIATION

Friday, April 7

Lido Room

1:30 to 2:00 PM	Short paper of primary interest to Psychiatrists.
2:00 to 3:30 PM	*Suicide and Depression,* George Winokur, M.D., Department of Psychiatry, State University of Iowa School of Medicine. This program of general interest to all physicians.
3:30 to 4:00 PM	Short paper of primary interest to Psychiatrists.
4:00 to 4:30 PM	Business Meeting. All sessions to be held in the Lido Room.
6:00 PM	Social Hour and Banquet. (Room to be assigned.) Guest Speaker: Ewald Busse, M.D., President, American Psychiatric Association.

Continuing Education Coming Events

Jan. 12-13	**Postgraduate Symposium: Practical Obstetrics and Gynecology** Continuing Education, M.U. School of Medicine Columbia 65201
Jan. 12-14	**Comprehensive Care in Pulmonary and Infectious Diseases of the Chest** Danciger Institute for Health Sciences Menorah Medical Center, Kansas City 64110
Feb. 2	**Office Pediatrics** Continuing Education, M.U. School of Medicine Columbia 65201
Feb. 7-8	**Symposium: Cardiac Auscultation** Postgraduate Medical Education K.U. School of Medicine, Kansas City, Kan. 66103
Feb. 16-17	**Orthopedic Conference** Continuing Education, M.U. School of Medicine Columbia 65201
Feb. 17-18	**Recent Advances in Emergency Room Medicine** Danciger Institute for Health Sciences Menorah Medical Center, Kansas City 64110
Feb. 26-27	**Missouri Regional Meeting, American College of Physicians** Washington University Medical Center St. Louis

medical melange

Notes of interest from Here .... and There

Dr. Armand E. Bordeur, Chairman of the Board of Curators, has announced that the **St. Louis Medical Museum** is the first in the St. Louis area to receive accreditation by the American Association of Museums. Located in the St. Louis Medical Society Building, the Museum has been building its collection since March of 1964. Its unique quality is centered in the displays of artifacts, events and memorabilia of St. Louis area physicians, dentists, pharmacists and scientists from 1800 to the present. It is one of 38 museums in the United States out of the first 450 making applications this year to be approved by the Association to date.

Dr. Robert W. Tichenor was installed as the President of the St. Louis Academy of Family Physicians at a dinner meeting in St. Louis on December 4. Doctor Tichenor has practiced medicine in St. Louis since 1946. Other new officers of the Academy are **Drs. E. C. Kienzle,** President-Elect; **Arturo C. Montes**, Secretary; and **Porfirio M. Tiongson,** Treasurer.

Dr. James Y. Griggs, St. Louis, has been chosen as Councilor for Missouri on the governing body of the Southern Medical Association at its 65th Annual Meeting in Miami Beach in November. The SMA is comprised of physicians from 16 states and the District of Columbia.—**Gov. Warren E. Hearnes** has appointed **Dr. William L. Tomlinson** of St. Louis as a member of the board of regents of Southeast Missouri State College in Cape Girardeau.

Dr. Van William Taylor was honored by the Bonne Terre Chamber of Commerce at a reception at the Masonic Hall in Bonne Terre on November 14 for his many years of service to that community. Named as one of Bonne Terre's "most dedicated and devoted citizens," Doctor Taylor served as chief of staff at the Bonne Terre Hospital for 21 of his 39 years as a member of the staff.

Dr. Ben H. Koon of Bolivar was elected one of six vice-presidents of the Ozarks Councils, Boy Scouts of America at the annual meeting held in Springfield in November.—**Dr. Allen H. Moore** of Branson addressed members of the Civil War Round Table of the Ozarks at a dinner meeting in Springfield on November 10. His subject was the Battle of New Market in 1864.

Dr. Dick H. Underwood has been elected the 12th president of the medical staff of the Baptist Memorial Hospital in Kansas City. Other new officers are **Drs. David F. Eubank**, President-Elect; **Edward Haith**, Secretary; and **Eugene Capps**, Treasurer. **Dr. Milton B. Ozar**, a Past-President, was awarded a plaque honoring him as the most dedicated physician of the year.—Newly elected officers of the medical staff at St. John's Hospital in Springfield are **Drs. Frederick Coller**, President; **Yates Trotter**, President-Elect; **Leo Wyrsch**, Secretary; and **Phillip Carr**, Treasurer.

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An orally active hypoglycemic agent principally indicated in relatively mild, adult, maturity-onset, non-ketotic diabetes; also, as a supplement to insulin therapy in selected diabetic patients, it may effect a stabilization of labile diabetes and reduce insulin requirements. Certain patients intolerant to chlorpropamide therapy at usual therapeutic doses have subsequently been successfully managed with Orinase (tolbutamide).

Use in mild asymptomatic diabetic patients with abnormal glucose tolerance tests not responding to diet therapy may result in improvement of the glucose tolerance test.

Use in conjunction with phenformin is indicated when optimal control is not obtained with Orinase or phenformin alone.

Contraindications: Orinase alone is not effective in juvenile or growth-onset diabetes nor in unstable brittle diabetes where insulin therapy is required.

Orinase should not be used: when diabetes is complicated by acidosis, ketosis, or coma, or when a history of repeated bouts of acidosis or coma is obtained; in the presence of other acute complications such as fever, severe trauma, or infections; and in patients with severe renal insufficiency. Insulin is indicated in these circumstances.

Pregnancy Warning: The safety and usefulness of Orinase during pregnancy has not been established either from the standpoint of the mother or the fetus. Animal studies have demonstrated feticidal and teratogenic effects of doses of 1,000-2,500 mg./kg./day, but application to human subjects unknown. Therefore, Orinase is not recommended for the pregnant diabetic, and when administering Orinase to women of childbearing age, these facts should be borne in mind.

Precautions: Diagnostic and therapeutic measures necessary for optimal control with insulin are also necessary with Orinase. The patient on Orinase must be fully instructed: about the nature of his disease; how to prevent and detect complications; how to control his condition; not to neglect dietary restrictions, develop a careless attitude or disregard instructions relative to body weight, exercise, personal hygiene, and avoidance of infection; how to recognize and counteract impending hypoglycemia; how and when to test for glycosuria and ketonuria; how to use insulin; and to report to the physician immediately if he does not feel as well as usual.

Caution, very close observation, and careful adjustment of dose are necessary when: insulin is withdrawn during the trial period in order to avoid ketosis, acidosis, and coma; thiazide diuretics are administered which may result in aggravation of diabetic state and increased tolbutamide requirement, temporary loss of control, or even secondary failure; treating patients with impaired hepatic and/or renal function and debilitated, malnourished, or semistarved patients in order to avoid severe hypoglycemia which may require corrective therapy over several days; and treating patients with severe trauma, infection, or surgical procedures where temporary return to insulin or addition of insulin may be necessary. Response to tolbutamide is diminished in patients receiving therapy with beta blocking agents.

As some diabetics are not suitable candidates, it is essential that the physician familiarize himself with the indications, limits of application, and selection of patients for therapy.

Patients must be under continuous medical supervision, and during the initial test period should communicate with the physi-

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- may be used in your patients with coronary insufficiency.
- conflicts have not been reported with diuretics, corticosteroids, antihypertensives or miotics.
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In fact, there are no known contraindications in recommended oral doses other than it should not be given in the presence of frank arterial bleeding or immediately postpartum.

Although not all clinicians agree on the value of vasodilators in vascular disease, several investigators[1-4] have reported favorably on the effects of isoxsuprine. Effects have been demonstrated both by objective measurement[2,4] and observation of clinical improvement.[1,3] **Indications:** Cerebrovascular insufficiency, arteriosclerosis obliterans, diabetic vascular diseases, thromboangiitis obliterans (Buerger's disease), Raynaud's disease, postphlebitic conditions, acroparesthesia, frostbite syndrome and ulcers of the extremities (arteriosclerotic, diabetic, thrombotic). **Composition:** VASODĪLAN tablets, isoxsuprine HCl 10 mg. and 20 mg. **Dosage:** Oral—10 to 20 mg. t.i.d. or q.i.d. **Contraindications and Cautions:** There are no known contraindications to recommended oral dosage. Do not give immediately postpartum or in the presence of arterial bleeding. **Side Effects:** Occasional palpitation and dizziness can usually be controlled by dosage reduction. Complete details available in product brochure from Mead Johnson Laboratories. **References:** (1) Clarkson, I. S., and LePere, D. M.: Angiology *11*:190-192 (June) 1960. (2) Horton, G. E., and Johnson, P. C., Jr.: Angiology *15*:70-74 (Feb.) 1964. (3) Dhrymiotis, A. D., and Whittier, J. R.: Curr. Ther. Res: *4*:124-128 (April) 1962. (4) Whittier, J. R.: Angiology *15*:82-87 (Feb.) 1964.

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AMA Planning Council To Hold Hearings On Organization's Structure, Programs

The American Medical Association's Council on Long Range Planning has been directed by the Association's House of Delegates to hold open hearings for AMA members in San Francisco in June and in Cincinnati in November of 1972 to explore questions relating to the AMA organizational structure and programs.

The decision of the House to instruct the Council to hold the hearings came on the final day of the 1971 Clinical Session in New Orleans and followed two appearances before the House by AMA President Wesley Hall, in which he said that "our House of Medicine is sorely in need of some major repairs" and repeated his call for a Constitutional Convention or other appropriate procedure for a basic review of organizational structure and programs.

The instructions to the Long Range Planning Group was contained in an amendment to a Reference Committee recommendation proposed by the Wisconsin delegation.

The 1971 Clinical Session in New Orleans lasted from November 28 through December 1 and was attended by more than 3,000 physicians including a delegation from Missouri. MSMA's four delegates, four alternates, Association officers and members were in attendance. Delegates are Arthur W. Neilson, St. Louis; Hector W. Benoit, Jr., Kansas City; Stanley S. Peterson, Springfield; and J. Loren Washburn, Versailles. Alternates are James C. Sisk, St. Louis County; Robert W. Kelley, St. Louis; Rae W. Froelich, Lebanon; and Hugh Stephenson, Columbia. Doctor Peterson served as a member of the credentials committee. Also in attendance was Wendell Scott of St. Louis, a delegate from the Section on Radiology.

MSMA President Gerald L. Miller of Kansas City and President-Elect Walter T. Gunn of St. Louis were both in attendance.

One of the highlights of the Clinical Session was the appearance on November 28 of Vice-President of the United States Spiro T. Agnew. Mr. Agnew addressed approximately 1,000 physicians and others who attended the 10th anniversary dinner of the American Medical Political Action Committee.

Mr. Agnew said that any federal health plan enacted without the support and cooperation of the medical profession is unlikely to have a lasting beneficial effect. Noting that Congress currently has before it a vast amount of legislation aimed at improving the health care of the American citizen, the Vice-President said, "Some of that legislation is very wide of the mark."

He commended members of AMPAC for their interest in politics and their willingness to become involved on an open, forthright basis in the electoral process.

The Vice-President was critical of AMA activities in the anti-pollution field, criticizing a recent AMA sponsored advertisement which called attention to pollution programs in the United States and asked the question, "If America dies where will we bury It?" He said that he did not expect "scare" type information like this from the AMA. He said that great strides are being made in the pollution control field.

Among the important decision of the House in addition to the setting of hearings concerning the AMA's structure and organization were the creation of a special section for medical students and one for interns and residents, approving $20 annual dues for interns and residents, approving a vote on the Board of Trustees for the AMA Vice-president, approving participation of nonmembers of the AMA in AMA scientific programs and directing that the AMA lead in developing a national program for certification of the assistant to the primary care physician.

The establishment of a special section for medical students, as well as one for interns and residents, has been assigned to the Council on Constitution and By-Laws to develop appropriate language to accomplish this purpose working with representatives of the Student American Medical Association and of the interns and residents.

On the same subject of representation for younger members of the profession, the House established annual dues of $20 for interns and residents as members of AMA. This will be for interns and residents who are active members of state associations, or as direct AMA members where there is no state provision for such membership.

Several actions were taken concerning physician assistants. The House directed that AMA, through its Council on Health Manpower, "assume a leadership role in developing and sponsoring a national program for certification of the assistant to the primary care physician, who functions at the highest level of responsibility described by the National Academy of Sciences as a 'Type A' assistant." Reiterated was the position that certification, rather than licensing, is the correct procedure concerning physician assistants.

Delegates also adopted a report of the Council on Medical Education, outlining essential requirements for AMA approval of educational programs for such assistants. Essentials were developed in collaboration with the American Academy of Family Physicians, the American Academy of Pediatrics, the American College of Physicians and the American Society of Internal Medicine.

Essentials of an approved program for urologic physicians' assistants, outlined in another Council report, went back to the Council for further study.

The House adopted a resolution which reiterated AMA concern about increasing hospital costs and pledged AMA efforts to achieve cost controls. The resolution called for detailed study of the costs of hospital services to identify (1) multiple factors involved; (2) the elements that have the greatest impact on the rise in hospital costs; (3) the various cost factors attributable to hospital-based medical and allied health education programs; (4) the alternative mechanisms to finance the cost of such educational programs, including the possibility of reducing or eliminating charges to patients that are attributable to such programs; (5) the degree of impact, if any, that federally-funded health programs have on these hospital costs." The study is to be made in consultation with the American Hospital Association, private and governmental payment agencies and representatives of the public. Periodic progress reports are to be submitted at each session of the House of Delegates.

The House called for immediate improvement of the quality of emergency medical services in the U. S. and urged medical societies which have not done so to establish councils on emergency medical services whose responsibility should include developing action programs in emergency medical services to meet their area's needs and maintaining liaison with groups at all levels of organized medicine concerned with emergency medical services.

Small communities would be urged to consider linking together with surrounding communities to form regional systems. Physicians will be urged to be active in all phases of this program.

The House adopted a revised statement on the scope, objectives and functions of occupational health programs. The statement, among other things, said "some employes on occasion may find it impossible to locate or obtain the services of a personal physician or health service. In such circumstances, limited to where treatment is otherwise unavailable, the occupational physician may undertake additional and continuing treatment of an employe's nonoccupational condition if requested to do so by the employe or his family."

Also adopted was a study on Community Health Delivery Program. Wide distribution was urged. The study described funding, scope of operations and staffing of 30 programs around the nation. Physicians should be active, the report recommended, in a number of areas including participating in planning and operation of community health programs; using all means at their disposal to ensure that all people are afforded equal access to adequate medical and health care; supporting campaigns against factors harmful to health, such as lead poisoning, drug abuse and poor housing; and supporting health education programs in schools, homes and the mass media. The federal government should be urged to consolidate all federal health programs under one department and to provide long-range approval and funding.

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"Just tell him his partner is here."

MSMA President Gerald L. Miller Visits First, Tenth Councilor Districts

Mr. Edward M. (Eddie) Hirsch *(left)*, Executive Secretary for Buchanan County Medical Society, and First District Councilor John N. Martin standing in front of AMPAC-MMPAC exhibit featured at the meeting. Mr. Hirsch is completing 25 years of continuous service with the Medical Society this month.

Two presidents discuss current problems affecting their medical societies. Dr. Gerald L. Miller *(left)*, President of the Missouri State Medical Association, and Dr. Donald E. Kuenzi, President of Clay County Medical Association, take time out for a serious discussion.

First District

Dr. John N. Martin, Councilor, served as host and master of ceremonies at the Missouri State Medical Association's First District meeting at Hotel Robidoux in St. Joseph on November 17.

Physicians and their wives from the 19-county district in Northwest Missouri attended the meeting.

MSMA President Gerald L. Miller paid his official visit to the District and spoke to the group on problems concerning the Medical Association today.

Other program participants were Dr. Hector W. Benoit, Jr. of Kansas City, Chairman of the Board of Directors of the Health Care Foundation of Missouri, and Dr. Paul R. Young of Columbia, Director of Continuing Medical Education at the University of Missouri-Columbia. Doctor Young discussed the MSMA Continuing Education program in particular.

Tenth District

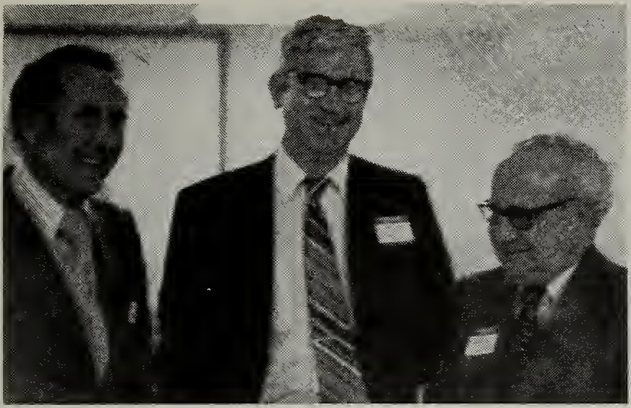
One hundred physicians and their wives from an 18-county area in Southeast Missouri attended the MSMA's Tenth Councilor District meeting, which was held in conjunction with the SEMO Cancer Conference, at Holiday Inn in Poplar Bluff on November 21.

Dr. Gerald L. Miller, President of the Missouri State Medical Association, was a program participant at the Cancer Conference and at the Councilor District dinner-meeting as he paid his official visit to that District.

Dr. Richardson K. Noback, Dean of the University of Missouri-Kansas City School of Medicine, was the guest speaker at the Councilor District meeting.

Dr. Eugene T. Hansbrough, Councilor for the Tenth District, presided at both meetings.

The Cancer Conference opened at 2 PM with a scientific session. Following welcoming remarks by Dr. George H. Ladyman of Poplar Bluff,



(*Left to right*) Dr. George H. Ladyman of Poplar Bluff, President of Butler-Wayne-Ripley County Medical Society, Councilor Eugene T. Hansbrough and MSMA President Gerald L. Miller offer a triple-welcome to guests at the Tenth District meeting.

Councilor Eugene T. Hansbrough and Mrs. Hansbrough arrive early at the Tenth District meeting to serve as host and hostess. Doctor Hansbrough presided at both the Council meeting and the SEMO Cancer Conference held in Poplar Bluff.

President of the Butler-Wayne-Ripley Medical Society, Dr. A. N. Arneson of St. Louis served as moderator for the session which presented as speakers Doctor Miller and Drs. E. C. Carlson, Poplar Bluff; Charles P. McGinty, Cape Girardeau; Max A. Heeb, Sikeston; Ricardo M. Ramirez, Poplar Bluff; Ernest B. Johnson, Cape Girardeau; and Robert Ahlvin, Sikeston.

While physicians attended the afternoon Cancer Conference, their wives were guests of the Woman's Auxiliary to the Butler-Wayne-Ripley Medical Society at a tea and informal fall fashion show at Ruth's in Poplar Bluff.

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Detection of Diabetes Mellitus: A Community Study

Special Article

During the past several years, various methods for the detection of diabetes mellitus have been developed. In 1946-1947, Wilkerson and Krall[1] in Oxford, Mass., performed the first community study of the prevalence of diabetes by using the combination of a urine sugar test and a blood sugar determination on 3,516 of the 4,983 inhabitants of the community.

Some investigators have reported other methods. The St. Louis Diabetes Association has reported various techniques, as well as the use and advantages of the St. Louis Dreypaks,[2, 3] a test for glycosuria and a postprandial blood sugar determination. More recently, some members of the Association have published the results of a comparison study of the Dreypak technique, postprandial blood sugar and a three-hour glucose tolerance test.[4]

For the past several annual drives, the St. Louis group, because of the economy and ease of testing large groups of people, has used urine studies (Dreypak) with a modification of a three-hour glucose tolerance test on selected individuals. This modified tolerance test consists of obtaining a one-hour and a two-hour blood glucose determination after a glucose load in the fasting state. Such a survey detects only a selected group of individuals, namely, those who have a high interest in diabetes and who, by use of the Dreypak, are found to have glycosuria. It has been found by experience that approximately 50% of those with a positive Dreypak return for a free modified glucose tolerance test in such a drive.[5] At the time of the modified glucose tolerance test, a personal interview questionnaire has given valuable statistical information regarding family history, age, weight and, in the case of the women, the number of babies with birth weights of 9 lb or more. Unfortunately, such a survey does not give an incidence of prevalence of diabetes in the community, detect the aglycosuric diabetic or give information regarding follow-up studies on the newly discovered diabetic individual.

In a number of communities, self-screening for diabetes mellitus has been done with the use of a test for urine sugar. This does not lead to adequate follow-up, the actual number with a positive test or the number of diabetics discovered.

In other communities, either a multiphasic screening drive or a diabetes screening project has been conducted. The percentage of the population participating in these efforts has been somewhat disappointing.

Although many medical societies, in cooperation with the American Diabetes Association, have participated in screening programs for diabetes, there has been concern over the fact that even with this emphasis, the percentage of the total community participation was less than would be considered highly desirable. Individual physicians may screen patients for diabetes who, for one reason or another, see a physician. The physician, however, is at a disadvantage in reaching those individuals who have or feel they have no cause for seeing the physician. The Missouri State Diabetes Association and the Missouri Division of Health were interested in developing a methodology of mass screening for diabetes which could be carried out by any community with a minimum of outside assistance, would result in maximum participation and would provide epidemiological information. It was felt that maximum participation could be obtained if the community were encouraged to carry out as much of the project as possible.

After considerable study, Sullivan, Mo., with a 1960 census population of 4,098 and located 70 miles southwest of St. Louis, was selected. Approximately 50% of the population is farmers and the majority of the rest of the men are industrial workers who commute daily to St. Louis.

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and Efudex® (fluorouracil) 5% cream can resolve it.

Call it actinic, solar or senile keratoses, many regard it as "precancerous."[1,2]

Topical fluorouracil, considered by some dermatologists to be a major advance in the treatment of multiple solar keratoses,[3,4] offers the physician a relatively inexpensive alternative to cryosurgery, electrodesiccation and cold knife surgery. Of the topical fluorouracils available, only Efudex offers 2% and 5% solution and 5% cream formulations—formulations that have proved effective in the treatment of these mutliple lesions.

Usual duration of therapy, 2 to 4 weeks.

Studies showed that with the 2% and 5% Efudex preparations, the usual duration of therapy was only 2 to 4 weeks.[5] Other studies with topical fluorouracil revealed that when concentrations of less than 2% were used, significant numbers of lesions recurred.[6]

Treats the lesions you can't see, too.

Numerous lesions, not apparent prior to 2% and 5% Efudex therapy, manifested themselves by definite reactions, while intervening skin remained relatively unaffected.[5] The early eradication of these subclinical lesions (which may otherwise have undergone further progression) probably accounts for the reduced incidence of future solar keratoses in patients treated with topical fluorouracil—especially with 5% concentrations.[6]

How to identify solar keratoses.

Typically, the lesion—a flat or slightly elevated brown to red-brown papule—is dry, rough, adherent and sharply defined. Multiple lesions are the rule.

Predictable therapeutic response.

The response to a typical course of Efudex therapy is usually characteristic and predictable. After 3 or 4 days of treatment, erythema begins to appear in the area of keratoses. This is followed by a moderate to intense inflammatory response, scaling and occasionally moderate tenderness or pain. The height of this response generally occurs two weeks after the start of therapy and then begins to subside as treatment is stopped. Within two weeks of discontinuing medication, the inflammation is usually gone. Lesions that do not respond should be biopsied.

References: **1.** Allen, A. C.: *The Skin, A Clinicopathological Treatise*, ed. 2, New York, Grune & Stratton, 1967, p. 842. **2.** Dillaha, C. J.; Jansen, G. T, and Honeycutt, W. M.: "Treatment of Actinic Keratoses with Topical Fluorouracil," in Waisman, M. (ed.): *Pharmaceutical Therapeutics in Dermatology*, Springfield, Ill., Charles C Thomas, 1968, p. 92. **3.** Belisario, J. C.: *Cutis, 6*:293, 1970. **4.** Sams, W. M.: *Arch. Derm., 97*:14, 1968. **5.** Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey. **6.** Williams, A. C., and Klein, E.: *Cancer, 25*:450, 1970.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity to any of its components.

Warnings: If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

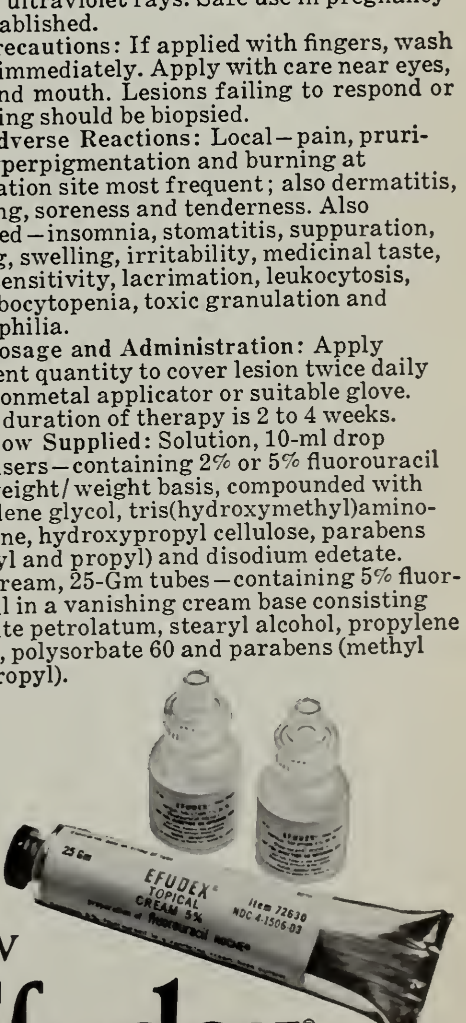
Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

How Supplied: Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)aminomethane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).



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A methodology for detection of diabetes mellitus was tested in a Missouri community of 3,767 inhabitants. Sixty-four persons were found with previously-undiagnosed diabetes based on the criteria used. In addition, 26 persons were classified as probable diabetics. The authors believe the same methodology can be applied to any size community and that it can provide additional epidemiological data on the disease. Doctor Allen is Associate Professor, Department of Community Health and Medical Practice and Assistant Medical Director, University of Missouri Medical Center. Doctor Roberts is Clinical Professor, Washington University School of Medicine. Doctors Reed and Crawford are in private practice.

PROCEDURE

The physicians in the community were contacted to determine their interest and willingness to participate in the proposed project.

When it had been determined that the physicians in Sullivan were interested and willing to participate actively in the proposed study, the first step in approaching public health in the community was completed.

The next step was to determine which of several community organizations would be interested and willing to undertake a major responsibility in the volunteer activities of the study. The Women's Extension Club was enthusiastic, and it should be here stated that this group ensured the success of the project.

At this point, Glenn Reed, a medical student at the University of Missouri Medical Center who was serving in a Public Health student training program assigned to the Missouri Division of Health, moved to Sullivan. One of the physicians in the community generously offered office space for Mr. Reed and was most valuable in helping plan the project.

The physicians, with selected literature and movie films, then conducted discussions of diabetes detection and the forthcoming project before civic clubs and church groups.

To determine the population to be studied, it was decided to limit the study to the official city limits of the town of Sullivan. A plat and a map previously prepared for election purposes were obtained. The latter divided the city into 25 sections, showing each house within the city limits.

The Women's Extension Club successfully recruited 200 volunteer workers. This group was divided into teams, one for each section, and a captain was selected for each team.

In the meantime, the authors developed a questionnaire which, along with the Dreypak, was approved as the primary screening device for the project by the Missouri State Diabetes Association and the Missouri Division of Health. The primary screenings served to determine known diabetics (Category I) in the community and to divide the remaining population into two groups, those least likely to have diabetes and those most at risk of having diabetes. All individuals with one or more of the following categories constitute the population considered at risk of having diabetes at this point in time:

Category II. Persons found to have sugar in the urine as determined by the Dreypak test.

Category III. Persons with a history of glycosuria or "tendency toward diabetes."

Category IV. Women who gave birth to one or more babies weighing 9 lb or more or who had a stillbirth or neonatal death within 24 hours after birth.

Category V. Persons with a relative with diabetes.

Category VI. All persons over 40 years of age and 20 lb overweight.

The volunteers were then instructed in administration of the questionnaire and in the proper technique of using the Dreypak to test urine for sugar, since they were to conduct a door-to-door campaign later. The news releases were run in the local newspaper, and the majority of the forms used in the study were printed by a local company. By the distribution of a "fact sheet," the people were informed about the forthcoming diabetes detection project.

The volunteers administered the questionnaire. The "two-page form" listed questions similar to those found on the Dreypaks, enlarging on information about relatives who had diabetes. In addition, the presence of overweight in the past was ascertained and the present height and weight were recorded, as well as whether or not medical care had been sought in the past six or 12 months. For women, the number of pregnancies and the birth weight of each child were listed. They also were asked for history of a stillborn child or one who died within 24 hours after birth. Those who were known diabetics were questioned in regard to the duration of illness, type of treatment, diet, insulin or hypoglycemic agents.

On the basis of the results obtained from the Dreypaks and the information derived from the questionnaires, the participating population was divided into three groups: (1) Known diabetics, (2) Those unlikely to have diabetes and (3) Those considered at risk of having diabetes.

The people with known diabetes were not asked to participate further in the study.

The people who were found to have a negative Dreypak and who had no other indication for further testing at this time, as determined from the questionnaire, were notified that their urine test was negative, but that they should see their doctor for another test within a year, particularly if they were 40 years of age or older.

The third group was then invited to have a modified glucose tolerance test (MGTT) done. A sample diet of 300 gm of carbohydrate was sent to each individual invited to be tested. They were instructed to follow the sample diet for at least three days prior to the test and, also, to fast for at least eight hours before the test was to be performed. The date and time for the test was mailed to each individual invited to be tested. On the morning of the test, the weight and height of each individual were obtained and recorded. Each person was asked whether or not he or she had followed the three-day diet and was in a fasting state.

A 50% solution of glucose mixed with an equal amount of cold water flavored with lemon juice was given to each individual in an amount of 1.75 gm of glucose per kilogram of the subject's desirable weight by the Metropolitan Life Insurance Table. Venous blood specimens for blood glucose determinations were drawn, using vacuum tubes containing fluoride, at one hour and two hours after the glucose solution had been consumed. We were able to perform such a tolerance test on 70-90 individuals in three hours on each Sunday morning that tests were done. The blood specimens were kept in an icebox and delivered to Barnes Hospital in St. Louis on the same morning. The blood glucose determinations were performed on the Autoanalyzer (Technician Instruments Corporation, Chauncey, N. Y.), using whole blood.

In view of the controversy concerning the blood glucose levels of a glucose tolerance test of older individuals,[6-8] we adopted higher levels of a glucose tolerance test as indicative of diabetes. The following criteria was used for all age groups over 15 years of age: blood glucose levels (following a glucose load) of greater than 160 mg/100 ml at one hour and greater than 140 mg/100 ml at two hours, as compatible with diabetes in this survey. Persons with a blood glucose level of 150 mg/100 ml or more at one hour and a two-hour blood sugar ranging from 120 mg/100 ml to 139 mg/100 ml were considered to be probable diabetics or indeterminates.

Each subject who had the MGTT was sent a letter stating the values of the two blood glucose determinations, as well as informing him whether the interpretation was normal, compatible with diabetes or indeterminate. In prior agreement with the physicians in Sullivan, individuals with either indeterminate or compatible with diabetes values were instructed to take the letter to their personal physician for interpretation and further evaluation.

The Population

According to the census of 1960, the population of Sullivan was given as 4,098 of which there were 1,927 men and 2,171 women in the age groups as given in Table 1.

Because there was a door-to-door check, we were able to account for a population of 3,767 or 92.0% of the population enumerated in the 1960 census. Information was not available as to the specific reasons for this difference of 331 persons. Much of rural Missouri has been losing population from out-migration, and this project took place some two years after the census enumeration. Further, in a local survey such as this, those not at home cannot very well be included, while in a national census those away from home on vacation, visiting or on business are counted wherever they are, but the count is assigned to their place of usual residence.

Due to the publicity which was associated with the study, although no solicitation was made outside the city limits of the community, those who requested to do so were allowed to participate, but they are not included in the data presented. The total number participating from outside the city limits was 70.

In the following, except for Category I (known diabetics), the data are for those aged 15 years or older. The results on those under 15 years of age are to be reported in a separate paper.

Proportion Participating

In any mass screening project, the purpose should be to obtain as near to 100% participation as possible. Indeed, one of the aims of this project was to develop a methodology which would obtain maximum participation. Although our success is difficult to evaluate objectively, it

TABLE 1

NUMBER AND PROPORTION OF INDIVIDUALS LOCATED AND PARTICIPATING BY AGE GROUP
SULLIVAN SURVEY, 1962

Age Group	Population 1960 Census	Located in Study		Participants by Questionnaire and Dreypak	
		NO.	% OF CENSUS	NO.	% OF THOSE LOCATED
Total	4,098	3,767	92	3,317	88
Under 15	1,245	1,153	93	1,085	94
15-24	539	448	83	391	87
25-34	496	431	87	399	93
35-44	530	465	88	438	94
45-54	448	402	90	380	95
55-64	315	278	88	256	92
65-74	321	239	74	221	92
75 and over	204	147	72	134	91
Unknown*		204		13	6

* Unknown or not recorded as to age, but a majority were reported to be elderly.

was felt that the effort put forth by many members of the community in carrying out the project was a major factor in stimulating the active interest and the degree of participation that was attained.

At the start of the study, although the scheduling was arranged to give men the maximum opportunity to participate, it was anticipated that the women of the community would have a much greater percent of participation in most of the age groupings. Table 2 gives the proportion of participation by sex and age groups.

The proportion participating was extremely high, as compared with surveys generally. This survey, however, did share with other surveys a common tendency to achieve less participation by older individuals. Also, there was a less complete identification and location of the older individuals. In view of the high rates of diabetes in the older age groups, it may be appropriate to work even more intensively upon reaching the older adults, including those who "aren't feeling very well" or whose memories do not seem up to par or who have other indefinite symptoms which in some instances may be either caused or intensified by mild diabetes.

Prevalence of Diabetes

In the survey, 63 persons with previously diagnosed diabetes were found. Based on criteria used in testing with the MGTT in this study, 64 previously undiagnosed cases of diabetes were found. In addition, there were 26 other persons with glucose curves which fell into a "probable diabetic" group.

The results by age-sex category of diabetes cases is shown in Table 3. If the total population as given in the 1960 census is used as a denominator, conservative figures would show a prevalence of 1.5% known cases and 1.5% newly discovered cases or a total prevalence of 3.0%.

Since there were 146 persons considered to be in the group most likely to have diabetes, who did not have the MGTT or other blood glucose determination, if that group can be considered to be similar to the group who did get a MGTT, then we would anticipate an additional 39 persons with newly-discovered diabetes. This would give a prevalence of 4.3% of the located population, which is more than the Oxford study.[1, 9]

Results

There was a total of 409 individuals aged 15 years or over who were invited to obtain a MGTT and 227 (55%) accepted the invitation. There were 38 (20%) of the remaining 182 who obtained a blood glucose determination elsewhere.

Category I

There were 63 persons with known diabetes mellitus, as determined by the questionnaires. These were confirmed by later checking with their personal physician. In this group, there were 25 males and 38 females.

The age range of the known diabetics is shown in Table 4. As anticipated, almost 77% (48) of the known diabetics were of age 35 years or older. The age group of 35 years and over constituted 44% (1,818) of the 1960 census population of the community (4,098).

The population of men of age 35 and over

TABLE 2

NUMBER AND PROPORTION OF INDIVIDUALS LOCATED AND PARTICIPATING BY SEX AND AGE SULLIVAN SURVEY, 1962

Sex and Age	*Population 1960 Census*	*Located in Study* NO.	% OF CENSUS	*Participants by Questionnaire and Dreypak* NO.	% OF THOSE LOCATED
Men	1,927	1,656	86	1,509	91
Under 15	612	577	94	539	93
15-24	230	189	82	159	85
25-34	239	200	84	177	88
35-44	268	225	84	208	92
45-54	211	183	87	169	92
55-64	141	113	80	107	95
65-74	132	104	80	97	93
75 and over	94	59	63	49	83
Unknown	94	6		4	66
Women	2,171	1,923	88	1,508	94
Under 15	633	576	90	546	94
15-24	309	259	84	232	90
25-34	257	231	90	222	96
35-44	262	240	92	230	96
45-54	237	219	92	211	96
55-64	174	165	90	149	90
65-74	189	135	71	124	92
75 & over	110	88	80	85	97
Unknown		10		9	90

TABLE 3

NUMBER OF DEFINITE AND PROBABLE DIABETES OBSERVED BY SEX AND AGE SULLIVAN SURVEY, 1962

	Definite and Probable Diabetes Observed TOTAL	KNOWN CASES	UNKNOWN DEFINITE	CASES PROBABLE
Both sexes	153	63	64	26
Men	59	25	21	13
Under 15	2	2		
15-24	2	2	0	0
25-34	3	1	1	1
35-44	12	5	3	4
45-54	10	4	1	5
55-64	14	7	6	1
65-74	12	3	7	2
75 and over	4	1	3	0
Women	94	38	43	13
Under 15	3	3		
15-24	6	4	2	0
25-34	7	3	3	1
35-44	9	4	2	3
45-54	16	4	10	2
55-64	21	5	14	2
65-74	22	9	9	4
75 and over	10	6	3	1

is less than women of age 35 and over, but the crude rate is still slightly higher for women than for men. This is consistent with national mortality data (and other data) that women in middle age and older tend to have slightly higher rates than do men of the same age groups.

The 63 known diabetics represent 1.3% of the 1960 census population and 1.7% of the population participating in the study.

It was interesting to note that of the 63 known diabetics, only 35 (58.7%) gave a history of a relative known to have diabetes. Eighteen were quite sure they had no relative with known diabetes. Four were not sure whether or not any relative had diabetes. Unfortunately, six of the questionnaires were left blank in regard to information about relatives with diabetes. It is not known whether the individuals did not know, were not sure or did not want to give the information or if the volunteer administering the questionnaire failed to record a "no" answer.

The age-weight comparison is based on data given to the interviewer by those who were in the category of previously-known diabetic. The term overweight, as used here, is based on the standards used in the project (Table 10). The term, normal weight, is applied to those whose

TABLE 4

KNOWN DIABETICS: AGE-SEX DISTRIBUTION

Age Groups	*Sex* MALES	FEMALES	*Total*
Under 15	2	3	5
15-24	2	4	6
25-34	1	3	4
35-44	5	4	9
45-54	4	4	8
55-64	7	5	12
65-74	3	9	12
75 and over	1	6	7
Total	25	38	63

stated weight is below that level considered as overweight for purposes of this study.

Of men under 40 years of age, seven were overweight and 12 were normal weight. For those over 40 years of age, one was overweight and five were normal weight.

For women under 40 years of age, there were 12 who were overweight and 13 who were normal weight. In the over-40 years-of-age group, there were three overweight and ten with normal weight.

Category II

Category II includes all those people who had glycosuria as determined by use of the Dreypak and who were not "known diabetics."

Out of the population participating, there were 121 (4%) with a positive Dreypak test. There were 77 (63%) who accepted the invitation to obtain a MGTT to be done in one of the clinics held. Of the remaining 44 (37%) individuals, there were 13 (29%) who did go to their physician and obtain a glucose tolerance test or a blood glucose determination. One man and two women were found to have diabetes as the result of blood glucose determinations by their own physician.

The results of testing Group II are given in Table 5. Of the 77, 28 were found to be compatible with diabetes and were equally divided as to sex. The majority were 35 years of age or over. Eleven of the 77 (14%) were classified as probable diabetic, and the remaining 38 had a normal MGTT.

Category III

Category III includes those individuals who gave a history of having been told they had sug-

TABLE 5

CATEGORY II (POSITIVE GLUCOSE BY DREYPAK). RESPONSE TO INVITATION FOR MODIFIED GLUCOSE TOLERANCE TEST, BY AGE AND SEX

		Diabetic		*Probable Diabetic*	*Normal*		
Sex and Age	*Total*	MGTT SDDS*	OWN PHYSICIAN	MGTT SDDS*	MGTT SDDS*	OWN PHYSICIAN	*No Blood Sugar Test Done*
Both sexes	121	28	3	11	38	10	31
Men	62	14	1	6	23	3	15
15-24	11				8		3
25-34	8	1	1		4		2
35-44	12	1		2	6	1	2
45-54	5	1		2	2		
55-64	11	3	1	1	2	1	3
65-74	10	5			1	1	3
75 and over	5	3					2
Women	59	14	2	5	15	7	16
15-24	10	2			3	2	3
25-34	8	1		1	4		2
35-44	5	1		1	1		2
45-54	9	3		2	3	1	
55-64	13	4	2		4	1	2
65-74	7	2				2	3
75 and over	7	1		1		1	4

* MGTT SDDS: Modified glucose tolerance test, under auspices of Sullivan Diabetic Detection Study. "Own physician" refers to those who responded to the invitation by going to their own physician.

TABLE 6

CATEGORY III. RESPONSE TO INVITATION FOR MODIFIED GLUCOSE TOLERANCE TEST, BY AGE AND SEX. INDIVIDUALS WHO HAVE A HISTORY OF HAVING SUGAR IN THE URINE OR A TENDENCY TO DIABETES, BUT NEGATIVE DREYPAK

Age and Sex	*Total*	*Diabetic*		*Probable Diabetic*	*Normal*		*No Blood Sugar Test Done*
		MGTT SDDS*	OWN PHYSICIAN	MGTT SDDS*	MGTT SDDS*	OWN PHYSICIAN	
Both sexes	46	5	2	2	22	3	12
Male	9	1		2	2	1	3
15-24	2					1	1
25-34							
35-44	2			1	1		
45-54	3			1	1		1
55-64	1	1					
65-74							
75 and over	1						1
Female	37	4	2		20	2	9
15-24	9				5	1	3
25-34	8	1			5		2
35-44	8				6		2
45-54	7	1	1		3	1	1
55-64	2	1			1		
65-74	3	1	1				1
75 and over							

* MGTT SDDS: Modified glucose tolerance test, under auspices of Sullivan Diabetic Detection Study. "Own physician" refers to those who responded to the invitation by going to their own physician.

ar in the urine at some time or another or had been told they had a tendency to diabetes. As determined from the questionnaire, there were nine men and 37 women for a total of 46 in this group. There were 29 (five men and 24 women) who had a MGTT done in the project clinic. There were five (17%) found to be in the diabetic classification and two (7%) in the probable diabetic group (Table 6). The 17 remaining subjects (four men and 13 women) did not accept the invitation to have a blood test done. However, five (one man and four women) did go to their own physician for evaluation and out of the five, two were determined to be in the diabetic classification.

Category IV

There were 58 women who gave a history of having given birth to one or more babies weighing 9 lb or more or who had one or more pregnancies resulting in a stillbirth or neonatal death and who had one or more relatives with a history of diabetes. Time limitations prevented inviting all women who had one or more babies weighing over 9 lb to have a modified glucose tolerance test. However, we feel that this would have been desirable, particularly from an epidemiological viewpoint.

There were 33 of this group who obtained a MGTT in the study (Table 7). Only one of the remaining 25 went to his own physician for blood glucose determination. There were nine (27%) in the diabetic classification and one classed as probable diabetic.

Category V

Although our preference was to invite all individuals who gave a history of any relative with diabetes to have a modified glucose test, time limitations for this project made it necessary to invite only those who had a parent or parents with diabetes.

In this category of 105 individuals, there were 42 (40%) who came to the project clinic for a MGTT (Table 8). There were 12 in the diabetic classification group and three in the probable diabetic group. There were 63 individuals (33 males and 30 females) in this category who did not accept the invitation to have the MGTT. However, 12 individuals (six men and six women) did go to their own physician for evaluation and one of the women was found to be a diabetic.

TABLE 7

CATEGORY IV. RESPONSE TO INVITATION FOR MODIFIED GLUCOSE TOLERANCE TEST, BY WOMEN WHO GAVE HISTORY OF HAVING ONE OR MORE BABIES WEIGHING NINE POUNDS OR OVER AND WHO HAD A RELATIVE WITH DIABETES

		Diabetic		*Probable Diabetic*	*Normal*		*No Blood Sugar Test Done*
Age	*Total*	MGTT SDDS*	OWN PHYSICIAN	MGTT SDDS*	MGTT SDDS*	OWN PHYSICIAN	
Women	58	9		1	23	1	24
15-24	5				2		3
25-34	9	1			2	1	5
35-44	10	1			6		3
45-54	11	2			6		3
55-64	13	1		1	5		6
65-74	7	3			2		2
75 and over	3	1					2

* MGTT SDDS: Modified Glucose Tolerance Test, under auspices of Sullivan Diabetic Detection Study. "Own physician" refers to those who responded to the invitation by going to their own physician.

Category VI

Using the Metropolitan height-weight scales for medium frame, the medium weight was determined for each height and 20 lb were added to this value to be the maximum normal weight figure (Table 9). Then, screening the questionnaires, all individuals 40 years of age or over whose stated weight compared to their stated height was above the value given in Table 10, were invited to obtain a modified glucose tolerance test. All who obtained a MGTT were weighed and their height measured. On later evaluation, all had accurately given their height; with one exception, all were within 2 lb of their previously-stated weight. The one exception had understated weight by 5 lb.

TABLE 8

CATEGORY V. RESPONSE TO INVITATION FOR MODIFIED GLUCOSE TOLERANCE TEST, BY AGE AND SEX. INDIVIDUALS WITH ONE OR BOTH PARENTS HAVING DIABETES

		Diabetes		*Probable Diabetes*	*Normal*		*No Blood Sugar Test Done*
Age and Sex	*Total*	MGTT SDDS*	OWN PHYSICIAN	MGTT SDDS*	MGTT SDDS*	OWN PHYSICIAN	
Both sexes	105†	7	1	3	32	12†	50
Male	48†	2		1	12	7†	26
15-24	10				3		7
25-34	10				2	2	6
35-44	17	1			4	3	9
45-54	4			1		1	2
55-64	4				3		1
65-74							0
Women	57	5	1	2	20	5	24
15-24	5				2		3
25-34	11				2	4	5
35-44	16			2	10	1	3
45-54	14	3			6		5
55-64	6	1					5
65-74	3		1				2
75 and over	2	1					1

* MGTT SDDS: Modified Glucose Tolerance Test, under auspices of Sullivan Diabetic Detection Study. "Own physician" refers to those who respond to the invitation by going to their own physician.

† Added to Total is one male who had a Blood Sugar Test done by own physician and the result was normal. He refused to give his age.

TABLE 9

FIGURES USED TO DETERMINE OVERWEIGHT OF INDIVIDUALS 40 YEARS OF AGE OR OLDER

Height	*Female*	*Male*
4′10″	121	
4′11″	124	
5′0″	127	
5′1″	130	
5′2″	133	144
5′3″	136	147
5′4″	139	150
5′5″	143	153
5′6″	148	157
5′7″	152	161
5′8″	156	165
5′9″	160	169
5′10″	164	173
5′11″	168	177
6′0″	172	182
6′1″		186
6′2″		191
6′3″		196
6′4″		201

Of the 67 persons in Category IV,* 34 (50%) had a MGTT. Nine (26%) were found to be in the diabetic classification and eight in the probable diabetic group (Table 10).

Out of the remaining 33 persons who did not come in for a MGTT there were four who did see their own physician for evaluation. All four were found to have normal blood glucose determinations.

Comments

Subsequent to this project, the same methodology for screening for diabetes mellitus was carried out in two counties. One with a population of 5,000 and the other with a population of more than 25,000. The results were similar to the Sullivan project. For brevity, the data of the two subsequent projects are not included as originally planned.

The results of this project would indicate that screening for diabetes using glycosuria determination alone would fail to uncover a good number of those with previously-undiagnosed diabetes.

In view of results of other studies and the findings in the study reported here, the value of using the MGTT following a three-day high carbohydrate diet as a single screening procedure serves as a useful index of diabetes.

While it was not measured in accurate terms, the authors feel that the percentage participation by the population is directly due to the fact that it was primarily the community's project, they had much responsibility and contributed both time and finances to the project.

Use of the Dreypak meant added active participation by each individual and served as one

(*Continued on page 31*)

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* There were an additional 67 individuals who were 40 years of age or over and 20 lb overweight scattered throughout Categories II, III, IV and V.

TABLE 10

CATEGORY VI. RESPONSE TO INVITATION FOR MODIFIED GLUCOSE TOLERANCE TEST, BY AGE AND SEX. INDIVIDUALS WHO WERE OVER AGE 40 AND OVERWEIGHT

		Diabetic		*Probable Diabetic*	*Normal*		*No Blood Sugar Test Done*
Age and Sex	*Total*	MGTT SDDS*	OWN PHYSICIAN	MGTT SDDS*	MGTT SDDS*	OWN PHYSICIAN	
Both sexes	67	9		8	17	4	29
Men	36	3		4	10	2	17
40-44	3	1		1			1
45-54	19			1	4	2	12
55-64	5	1			3		1
65-74	7	1		2	2		2
75 and over	4				3		1
Women	31	6		4	7	2	12
40-44	5				3		2
45-54	5				1	1	3
55-64	9	5		1	2	1	
65-74	7	1		3	1		2
75 and over	5						5

* MGTT SDDS: Modified Glucose Tolerance Test, under auspices of Sullivan Diabetic Detection Study. "Own physician" refers to those who responded to the invitation by going to their own physician.

WASHINGTON

The American Medical Association's testimony before the House Ways and Means Committee hearings on national health insurance attracted most of the committee members for one of the few times during the marathon sessions, although Chairman Wilbur Mills was away on the campaign trail.

The AMA urged adoption of its national health insurance proposal—Medicredit—as a program that "can be put into operation now."

The AMA proposal, which offers both basic and catastrophic coverage for all Americans not covered by Medicare, was set forth in testimony before the House Ways and Means Committee by Dr. Max H. Parrott, Chairman of the AMA Board of Trustees, and Dr. Russell B. Roth, Speaker of the AMA House of Delegates.

"I do not want to suggest to this Committee that our present system of health care is perfect. It is not. It needs modification and change. And it will serve people better with the kind of government-supported health insurance we propose in our Medicredit bill," Doctor Parrott told the committee.

"It (Medicredit) avoids the mistake inherent in proposals such as H.R. 22 (the Kennedy-Labor bill), which would lock medicine into a rigid, monolithic, no choice, bureaucratic system before there is any real evidence that it would make things better," he said.

In contrast to H.R. 22, Doctor Roth stated, Medicredit builds upon outstanding accomplishments of American medicine "which has shown a capability of being the best in the world."

"And it can be put into operation now. It has no dependence on untried theory or dubious economics. It does not require an unreasonable expenditure of federal dollars and it does not jeopardize the funding of other vitally necessary programs to improve the nation's health. It places emphasis on greater financial support for persons needing this assistance. It does not create an unreasonable, unrealistic and burdensome administrative bureaucracy," Doctor Roth added.

The AMA Medicredit proposal, whose 160 sponsors in Congress are the most for any national health insurance proposal, would provide both basic and catastrophic coverage for all Americans under age 65. (Medicare would continue for all those over 65.) It is based on a system of tax credits with the government paying the cost for those who have little or no income. The government would also pay the premiums on the catastrophic coverage for all citizens. (The AMA estimates Medicredit would cost about $14 billion a year. H.R. 22 would cost at least $60 billion a year in new tax money, according to a recent study by the Department of Health, Education and Welfare.)

Under its basic coverage, Medicredit provides comprehensive benefits in respect to hospital inpatient and outpatient services, as well as full physician services. Its catastrophic coverage includes full hospitalization and additional extended care, with a continuation of outpatient services and full physician services.

"It puts these benefits within the reach of all Americans under age 65 as a prepaid insurance package," Doctor Roth told the committee. "The benefits are uniform for all citizens under the program. For those with little or no income, the cost would be borne by the federal government from general revenues. For those with a capability to pay part of the costs, the program is realistically geared to encourage them to do so. The motivation for participation would, we believe, be especially strong because of our incorporation of tax credits."

Doctor Parrott, in his testimony, drew the attention of the committee to many achievements in American medicine:

"Those who criticize our system of medicine imply that it is static and must be replaced. Let me call your attention to some of the salient accomplishments of our pluralistic medical system. Accomplishments that are obscured in the radical chic, by a disaster lobby which stridently proclaims a need for revolutionary change.

"Probably our highest achievement is in the quality of medical care in this country. The world standard of medicine is here in this country. American medical schools produce men and women with the best medical education there is. Our technology is unsurpassed. The ranks of allied health manpower continue to grow in terms of both size and sophisticated training."

Doctor Parrott cited the 25% drop in the nation's infant mortality rate in the last decade and the steady growth of life expectancy in the U. S. as evidence "that American medicine—our pluralistic, evolving, pragmatic system—is changing things for the better, that we *are* making progress."

American medical schools, Doctor Parrott noted, have increased from 89 in 1967 to 108 this year and first-year enrollment has grown from 9,000 to 12,000 students. The number of new physicians each year exceeds 8,000 due in part to "an almost revolutionary telescoping of the traditional medical education." This means, Doctor Parrott said, that the physician population is growing at a rate "more than double" the general population rate.

Organized medicine has also undertaken initiatives to bring medical costs under control, Doctor Parrott told the committee. This is being accomplished mainly through medical society foundations, based on the concept of peer review, which screen hospital admissions and review medical procedures.

"On balance, we have a medical system with impressive accomplishments, a system that is flexible and innovative, a system responsive to the need for change and improvement. In whatever action this committee chooses to take the American Medical Association strongly urges that you build on the very real strength that now exists," Doctor Parrott concluded.

Detection of Diabetes Mellitus

(Continued from page 29)

of the mechanisms for determining the categories of those most at risk of having diabetes. The yield from the positive Dreypak category was highest of the five categories, which was expected.

The project demonstrated that such a survey for detection of diabetes can be carried out by any community sufficiently interested. The same methodology can be applied to any size community. The large communities, of course, would need more people, money and time in proportion.

While we used the classifications of diabetes and indeterminate or probable diabetes for purposes of the study, we realize that one should not consider one MGTT as diagnostic. It does, however, serve as a most useful tool for screening out of the population more persons at risk of having diabetes, those who by further evaluation, indeed, will be found to have diabetes.

While much yet is to be learned about detecting the individual who will later develop diabetes, this study has produced base line data and future studies of this same population should be done.

This methodology applied to a greater segment of the population should provide much valuable epidemiological information on diabetes.

SUMMARY

A methodology for detection of diabetes mellitus on a community basis is described.

In a community of 3,767, there were 63 persons with previously diagnosed diabetes. The study found 64 undiagnosed cases of diabetes based on criteria used in testing with a modified glucose tolerance test. In addition, there were 26 other persons with glucose curves which fell into the "probable diabetic" category.

Both a questionnaire and urine test for glycosuria were used to delineate an at higher risk group, which was further tested by using a modified glucose tolerance test following a three-day high carbohydrate diet.

It is felt that the same methodology for detection of diabetes mellitus can be applied to any size community, and it also can provide additional epidemiological data on the disease.

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WALTER HARVEY JACOBS, M.D., T. CHAUDHURI, M.D.
and **LEE I. PICKERING, M.D.,** *Kansas City*

Present Status of the Secretin Test

The analysis of juice obtained via duodenal drainage, after the intravenous administration of secretin (the secretin test), has been considered the most reliable index of pancreatic secretion. After observing variations in response when repeat secretin tests were performed on the same patient using the same (Boots)* or different (Boots and GIH)† brands of secretin, we suggest expansion of the range of values that are accepted as normal.

Methods

The secretin test was performed according to the method of Dreiling.[1] A bilumenal gastroduodenal tube was inserted and positioned in fasting patients, using fluoroscopic guidance. The tip of the tube was manipulated to the ligament of Treitz. From the distal tube, duodenal juice was obtained and from the proximal tube, gastric juice was obtained, using gentle manual suction. Secretin was rapidly administered intravenously in a dose of one unit per kilogram of body weight. Then, juice was collected for four 20-minute periods. Upon completion of the test, the total volume of duodenal juice was measured as was the concentration of bicarbonate in each specimen. (Amylase concentrations were measured, also, but there was too much overlap between those with and without pancreatic disease for these data to be considered.)

Results

A. Using Boots' Secretin only, double tests were performed in tandem on 20 patients.

Maximal Bicarbonate Concentration (Table 1): In six patients subnormal bicarbonate response (maximal concentration less than 90 mEq/liter) in the first test became normal in the second test. In two patients, normal bicarbonate response in the first test was followed by a subnormal response in the second. Although there

After determining a significant difference in the potency of two brands of secretin administered intravenously in the test to analyze juice obtained via duodenal drainage, the authors suggest expansion of the range of values that has been accepted as normal in this index of pancreatic secretion. Doctor Jacobs is Head of the Section of Gastroenterology, and Director of the Goppert Gastroenterology Laboratory, Menorah Medical Center; Assistant Clinical Professor of Medicine, University of Missouri-Kansas City; and Instructor of Medicine, Kansas University in Kansas City, Kan. Doctor Chaudhuri is a Fellow in Medicine and Doctor Pickering is a Resident in Medicine at Menorah Medical Center.

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* Boots' Secretin—manufactured by the Boots' Pure Food and Drug Co., Nottingham, England and distributed in the United States by Warren Teed and Co.

† Gastro-intestinal Hormone (GIH) Secretin—obtained from the Gastro-intestinal Hormone Research Unit, Karolinska Institute, Stockholm, Sweden.

TABLE 1

DOUBLE SECRETIN TEST—BOOTS SECRETIN—
20 PATIENTS
MAXIMAL BICARBONATE CONCENTRATION

Bicarbonate Concentration (mEq/l)	*No Pancreatic Disease*	*Chronic Pancreatitis*	*Pancreatic CA (Body)*
Both 90 or more	5	—	—
One 90, other 70-90	6	—	2
Both 70-90	2	—	—
One 70-90, other 60-70	—	1	—
Both 60-70	—	1	—
Both < 60	—	3	—

TABLE 3

GIH SECRETIN VS BOOTS SECRETIN—
12 PATIENTS
MAXIMAL BICARBONATE CONCENTRATION

Bicarbonate Concentration (mEq/l)	*No Pancreatic Disease*	*Chronic Pancreatitis*	*Pancreatic CA (Head)*
Both 90 or more	1	—	—
GIH 90, Boots 70-90	2		
GIH 90, Boots 60-69	1		
GIH 70-89, Boots 60-69	1		
Both < 60		2	1
Both 60-69		1	
Boots 90, GIH 60-69	1		
Boots 70-89, GIH < 60		1	
Boots 60-69, GIH < 60		1	

was no evidence of pancreatic disease in six and pancreatic cancer was present in two, not one had evidence of chronic pancreatitis, the diagnosis usually indicated by subnormal bicarbonate concentration. Furthermore, all patients without pancreatic disease achieved a maximal bicarbonate concentration of at least 70 mEq/liter.

Total Volume (Table 2): Seven subjects secreted a subnormal volume (less than 2 ml/kg of body weight) in the first test that became normal in the second. Two of these had chronic pancreatitis and five had no evidence of pancreatic disease. None had pancreatic cancer, the diagnosis usually indicated by a subnormal volume response. All but one patient without pancreatic disease produced a volume of at least 1.5 ml/kg on both tests.

B. Twelve double secretin tests were performed in tandem using both GIH Secretin and Boots' Secretin. Each brand was given as the first stimulus six times.

Maximal Bicarbonate Concentration (Table 3): The maximal bicarbonate concentration was greatest after GIH Secretin seven times, Boots' Secretin four times and equal once. Moreover, there were two patients with no evidence of pancreatic disease (at surgery once and at autopsy once), whose maximal bicarbonate concentration after GIH Secretin ranged from 60-69 mEq/liter.

Total Volume (Table 4): Whether given first or last, GIH Secretin caused a greater volume response in every case. Subnormal volume response to GIH Secretin occurred only twice. One was a patient with carcinoma of the head of the pancreas, and the other was with advanced chronic calcific pancreatitis.

Discussion

Using secretin prepared by the Eli Lilly Co., Dreiling and Hollander studied pancreatic secretion in patients without pancreatic disease[2] and, later, in patients with chronic pancreatitis[3] and pancreatic cancer. Normal secretory values were established, i.e., total volume at least equal to 2 ml/kg of patients' weight and maximal bicarbonate concentration at least equal to 90 mEq/liter. Patients with chronic pancreatitis invariably had a subnormal bicarbonate concentration, while patients afflicted with pancreatic cancer frequently showed a low volume response.

TABLE 2

DOUBLE SECRETIN TEST—BOOTS SECRETIN—
20 PATIENTS
VOLUME OUTPUT

Total Volume (ml/kg)	*No Pancreatic Disease*	*Chronic Pancreatitis*	*Pancreatic CA (Body)*
Both 2 or more	8	3	2
One 2, other 1.5-1.9	4	1	
One 2, other < 1.5	1	1	

TABLE 4

GIH SECRETIN VS BOOTS SECRETIN—
12 PATIENTS
VOLUME OUTPUT

Total Volume (ml/kg)	*No Pancreatic Disease*	*Chronic Pancreatitis*	*Pancreatic CA (Head)*
Both 2 or more	3	3	—
GIH 2, Boots 1.5-1.9	3	—	—
GIH 2, Boots < 1.5	—	1	—
Both < 1.5	—	1	1

When Lilly Secretin was no longer available, it was assumed by many that other secretins would be similar in potency. This is not the case. Boots' Secretin is measured in Crick, Harper, Raper units; while GIH Secretin is standardized in clinical units. According to Grossman,[4] one clinical unit of GIH Secretin is equivalent to about eight CHR units of Boots' Secretin.

Recently, Konturek[5] has shown that maximal or near maximal rates of flow and bicarbonate output were obtained with a dose of nine-tenths clinical units of GIH Secretin, administered intravenously, either rapidly or as a one hour infusion. To achieve a similar response would require about seven CHR units of Boots' Secretin per kilogram of body weight. Interestingly, the price per ampule and the number of units per ampule of Boots and GIH Secretin are about the same.

The principle of maximal stimulation to evaluate organ response has become established firmly in gastric secretory testing. Now that a potent, purified secretin (GIH) is available, it appears that we are ready to standardize a maximal secretin test of pancreatic function.

Until a maximal secretin test is standardized, we suggest that the old secretin test not be abandoned. We do urge that the range of normal values be expanded, i.e., patients with volume responses to Boots' Secretin as low as 1.5 ml/kg of body weight do not necessarily have disease. Also, maximal bicarbonate concentrations, in response to either secretin brand, down to 70 mEq/liter do not necessarily indicate disease. In these situations, repeating the test, using four units of Boots' Secretin per kilogram, as suggested by Dreiling[6] or nine-tenths units per kilogram of GIH Secretin may clarify the situation. In our study, (a) there was not one double secretin test in which the maximal bicarbonate concentration did not reach 70 mEq/liter in either test and the patient showed no evidence of pancreatic disease; (b) eight of ten cases of chronic pancreatitis were identified by a maximal bicarbonate concentration under 70 mEq/liter on both occasions; (c) all patients without pancreatic disease produced more than 2.0 ml/kg in response to GIH Secretin; (d) each patient without pancreatic disease produced a volume of 1.5 ml/kg at least once in a double Boots' Secretin test; and (e) only the patient with carcinoma of the head of the pancreas and one patient with advanced chronic calcific pancreatitis produced a volume less than 2.0 ml/kg in response to GIH Secretin and less than 1.5 ml/kg to Boots' Secretin.

SUMMARY

The standard secretin test was reevaluated. In the first part of the study, double secretin tests were performed in tandem using Boots' Secretin. In the second part, double secretin tests were performed comparing the response to Boots' and to GIH Secretin.

There was a significant difference in the potency of each brand. GIH Secretin caused a greater volume of pancreatic secretion, but not necessarily a higher bicarbonate concentration.

The lower values accepted as normal need to be reduced. Although a minimal volume of 2 ml/kg is acceptable after GIH Secretin, a volume as 1.5 ml/kg is satisfactory after Boots' Secretin. Maximal bicarbonate concentrations as low as 70 mEq/liter may be obtained in people without pancreatic disease in response to either brand.

In borderline situations, the test should be repeated using 4 units/kg of Boots' Secretin or 0.9 units/kg of GIH Secretin.

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Community Attitudes Toward Alcoholics: Implications for Public Policy

THIS PAPER reports some data from a pilot study of attitudes of residents in a metropolitan community toward alcoholism and alcoholics. The larger study from which these data have been taken concerned attitudes toward the mentally ill, but the information obtained about attitudes toward drinking behavior appeared to be of sufficient interest to be reported separately. The emphasis in this paper is on the implications of these data for social policy relative to dealing with alcoholism in the United States.

THE PROBLEM OF ALCOHOLISM

A brief report such as this is not the place to discuss problems of defining "alcoholism" or "alcoholic" or of measuring the reliability of estimates of the prevalence of this behavior. These issues have been adequately reviewed elsewhere.[1] It should suffice here to acknowledge that whatever criteria are used—medical, biological, psychological, sociological—the problem in the United States has considerable magnitude. It is generally agreed that about three quarters of the adult population in the United States engages in some form of drinking behavior and that in 1960, there were from 4 million to 5 million alcoholics.[1] With the population increase alone, there are probably more than 6 million now. The point, of course, is not how precisely we can measure the number of alcoholics, but whether this form of behavior constitutes a social problem requiring solution. Judging by accident statistics in which drinking was involved, not to mention increasing rates of mortality from cirrhosis of the liver, the problem already has reached the point where it is of national and even international concern.

This is not a new observation, of course, and for a period of more than 30 years, a number of investigators have approached the problem from several directions.[2–4] Some have attempted to limit the concept to physiological patterns of response in the human organism. Others have stressed drinking behavior as a response to deep-seated psychological needs. Still others have shown that at least a part of the etiology of alcoholism lies in culturally-patterned styles of behavior. The important issue here relates to changes in the definition of the problem of alcoholism from a purely mechanistic disease concept to one that includes consideration of socio-environmental aspects of the problem.[5] That is, the multi-causal approach to etiology of diseases permits one to examine factors related to the setting, i.e., the community, in which the disease problem is located.

Although viewing alcoholism as a disease does not make it any less a social problem, it does open the way to some alternative methods of coping with the problem. The traditional, legalistic view of drinking behavior involves certain more or less specific criteria of public behavior. Once the individual's behavior exceeds the limits of the law, he can be defined as a criminal and submitted to the various prescribed channels of justice and correction. Primary concern here is given to the protection of society from "deviant" behavior. The more recent view of alcoholism as a socio-environmental disease permits authorities to think in terms of therapy and protection of the "victim" of the disease, rather than in terms of punishment and corrections. Seeley[6] has discussed the meaning, legitimacy and implications of claiming that alcoholism qualifies for disease status. Whether or not one agrees with his criteria for disease status, it is very clear that if one does view alcoholism from this perspective, different measures of social control may be applied, i.e., therapeutic efforts by individual practitioners and interested groups as well as by the legal system.

A highly suggestive example of the positive consequences of viewing alcoholism as a disease has been reported by Weber.[7] He evaluated the outcomes of an experimental program of rehabilitation for chronic police case inebriates. The program was designed to test the notion that an intensive treatment regimen of medical, psychological and social rehabilitation would be a more effective deterrent than repeated appearances in court for persons who had been arrested for public drunkenness. Included in the criteria for evaluation of a representative sample of 160 patients were changes in drinking patterns, work history, housing, income and arrest records. The results of the evaluation indicated "marked improvement" in drinking patterns (almost 20% had remained abstinent three months after treatment) and in physical health status. Less significant improvement was noted in the areas of employment, income and housing when the majority of patients experienced no change. There also was a decline from 46% to 13% in proportion of this study group who were arrested for public drunkenness before and after treatment. It is interesting, also, to speculate on the impact of these changes on the police courts where these cases would have been heard. However, no data were presented in this report.

This paper reports data from a pilot study of attitudes of residents in a metropolitan community toward alcoholism and alcoholics and emphasizes the implications of these data for social policy relative to dealing with alcoholism in the United States. Even though the findings are restricted to being suggestive, the authors believe they reveal a great deal of uncertainty about attitudes toward alcoholics. Doctor Coe is from the Department of Community Medicine and Doctor Smith is from the Department of Psychiatry, St. Louis University School of Medicine. This project was conducted in the St. Louis Community Laboratory in 1969 under the auspices of the Medical Care Research Center of St. Louis. Financial support was proved by USPHS Grant #HS-00109-09 (formerly #CH-00024).

Note on Methodology

The basic survey procedures followed in this study are the same as we have employed before in research in the St. Louis Community Laboratory.[8–9] They involve random selection of households in the laboratory area (in this case, limited to two census tracts known to differ on the basis of socio-economic class). Data were collected by personal interviews with an adult member of the chosen household. Interviewers were students in the Washington University Graduate Program in Hospital Administration and undergraduate majors in the Department of Sociology.

In some ways, our interview schedule has followed the lead of earlier projects regarding attitudes toward the mentally ill.[10–13] That is, we included a series of questions designed to tap the respondent's attitude about alcoholism and its effects. (We have been using the terms alcoholism and alcoholic as shorthand references to drinking behavior. However, because of the emotional charge that those terms carry, they never appeared in the series of questions. Rather, we referred to people who "drink too much," "are drunk a lot" or who are "heavy drinkers." The terms, therefore, do not necessarily correspond to any precise, technical definiton.) The dependent variable, attitude toward the alcoholic, was measured by questions on a scale of "intimacy," i.e., to what degree of social contact would the respondent permit the alcoholic? The levels were "work with such a person" (least intimate) to "allow such a person to marry into the family" (most intimate). Intermediate steps were "have such a person as a neighbor," "admit such a person to a favorite club" and "rent a room in your home to such a person."[10] The measure used was the percentage of respondents who replied "no" to each level of the scale of intimacy, that is, a measure of "rejection."[12]

Since our interest in attitudes toward the alcoholic was derived in part because of the potential relationship of alcoholism to mental illness and, therefore, to its definition as a disease, we also measured certain factors which had been shown in previous studies to influence the respondent's attitude and his behavior toward the mentally ill. These factors included whether or not the respondent thought heavy drinkers were mentally ill, whether or not he believed that alcoholism was remediable and what he thought was the best approach to helping the alcoholic.

Previous studies have reported that the degree of intimacy permitted the mentally ill person varied inversely with the level of imputed severity and the type of help-agent sought (minister, psychiatrist, mental hospital).[10, 12] We expected that alcoholics probably would be permitted less intimacy (to be more rejected) than the mentally ill because they represented the "double failures" in society. That is, they would be seen as people who have turned to drinking to cope with failure to achieve legitimate goals through

TABLE 1

LEVEL OF REJECTION* OF ALCOHOLICS AND THE MENTALLY ILL BY TYPE OF HELP SOUGHT (N = 97)

	Percentage Who Replied "No" for				
	MENTALLY ILL				
Level of Rejection	Minister	Psychiatrist	Mental Hospital	No Help	ALCOHOLIC
1. *Work* with such a person	1	1	3	32	43
2. Have such a person as a neighbor	0	0	3	37	39
3. Permit such a person as a member of a *club*	1	1	6	37	49
4. *Rent* a room to such a person	16	22	36	81	82
5. Allow such a person to *marry* into the family	21	30	35	82	78

* Based on percentage of "no" responses.

socially approved means.[14] However, we would expect that the perspective of alcoholism as a disease (rather than willful misbehavior) should soften the rejection of the drinker. In other words, if one views alcoholism as a disease, one should permit the drinker a greater degree of intimacy and to favor therapeutic rather than punitive solutions to the problem of alcoholism.

Attitudes of Community Residents Toward Alcoholism

As indicated earlier, the principal theme of this investigation was community attitudes toward the mentally ill. This more general theme provided an opportunity to ask some questions related to attitudes toward alcoholism and its victims (and to compare them with attitudes toward the mentally ill). The opportunity was made even more compelling by the fact that despite McCarthy's early suggestion[15] that problems of alcoholism be studied from a community perspective, there have been few studies of attitudes of residents of a community toward the alcoholic.

The basic data regarding comparison of attitudes of the respondents in this pilot study toward alcoholics and the mentally ill are shown in Table 1. The data on the latter correspond in pattern (if not always in magnitude) with earlier studies. Clearly, the degree of permissible intimacy declines (or the degree of rejection increases) according to type of help-agent sought. Moreover, respondents are always more accepting in relationships outside the family (work, neighbor, club) than within the family (rent a room, marry). It is also interesting to note that those who are suspected of being mentally ill but who do not seek help are much more often rejected than anyone seeking care.

More germane to the issue here is the finding that alcoholics are more often and more strongly rejected than any of those believed to be mentally ill (with one minor exception). In other words, the alcoholic is more like the mentally ill person who does not seek help for his illness—strongly rejected at every level of intimacy, particularly if it involves the family of the respondent.

Responses to questions concerning beliefs about alcoholism and the alcoholic are shown in Table 2. It may be seen in the first instance

TABLE 2

SOCIAL CLASS STATUS AND BELIEFS ABOUT ALCOHOLISM (In percent)

	Middle Class 100	*Working Class* 100	*Totals* 100
A. Is an alcoholic mentaly ill?			
Yes	50	36	43
No	38	58	49
Don't Know	12	6	8
	100	100	100
B. Can a person get over drinking too much?			
Yes	98	67	81
No	2	31	18
Don't Know	—	2	1
	100	100	100
C. What is the best means to recovery?			
Help			
Organizational	40	38	39
Interpersonal	17	4	10
No Help			
Personal	33	38	36
Don't Know	10	19	15
	100	100	100
N	42	52	94

that a substantial minority considers the heavy drinker to be "mentally ill" and this perspective is found more often among middle class respondents than among working class respondents. The majority, however, do not view alcoholism in the context of a disease perspective. These findings contrast somewhat with those of Haberman and Scheinberg[16] who found that almost two thirds of their sample viewed alcoholism in a disease perspective, but the percentage differences between social classes (measured by amount of education) were smaller.

A majority of all respondents in this study believed that a person can recover from drinking too much. Again, the middle class respondents were more optimistic. However, there was a divided opinion about the most effective form of dealing with the problem of alcoholism. Most respondents in this pilot study sample stated that alcoholics need some sort of help, especially from organizations (clinics, AA groups, etc.), but, also, individual treatment from physicians (including private psychotherapy). However, a surprisingly large proportion (36%) reported that they believed that "will power" or "desire" was sufficient (and was the best method) to recover from alcoholism.

Factors Influencing Attitudes

The foregoing simple distributions are subject to influences from several kinds of factors. The data in Table 2 already have indicated the importance of class affiliation in shaping one's attitudes toward the alcoholic. In addition, other studies have suggested that demographic factors such as age or sex also are important.[9, 15] In the present study, most of the respondents (90%) were women so no comparison would be made on the basis of sex. Also, age of the respondent did not significantly influence attitudes toward alcoholics, although younger respondents tended to be more rejecting of the alcoholic in the work and neighborhood settings while older respondents were more negative about an alcoholic marrying into the family.

More importantly, the influence of the belief systems of these respondents on rejection of the alcoholic remains theoretically most interesting and empirically most problematic. Since social class and the belief that alcoholics are mentally ill may be independently related to rejection of the alcoholic, these two factors are shown together in Table 3 (even though the sample sizes become very small). These data confirm the importance of social class inasmuch as class differences remain great for "work," "club" and "rent a room" settings. Differences in rejection by those who hold the belief that alcoholics are mentally ill and those who don't almost disappear when class is held constant and as the level of intimacy increases. It seems that working class respondents are more rejecting of alcoholics in the work setting but also in regard to neighboring and club membership while middle class respondents are more rejecting only with regard to renting a room.

Implications for Public Policy

It may be well to be reminded that this was a pilot study, any findings of which can be considered only as suggestive. Likewise, any implications for coping with the problem of alcoholism also must be considered as suggestive. Even with this restriction, however, it is clear that there is a great deal of uncertainty about attitudes toward alcoholics by these respondents. But in terms of the measures used here, alcoholics were more often and more thoroughly rejected than even a mentally ill person who re-

TABLE 3

LEVEL OF REJECTION* OF ALCOHOLICS, BY SOCIAL CLASS AND DISEASE ORIENTATION†

	Middle Class		*Working Class*	
	ALCOHOLISM AN ILLNESS?		ALCOHOLISM AN ILLNESS?	
Level of Rejection	Yes	No	Yes	No
1. *Work* with such a person	33	20	63	43
2. Have such a person as a *neighbor*	38	40	47	43
3. Permit such a person as a member of a *club*	52	20	42	57
4. *Rent* a room to such a person	90	93	89	67
5. Allow such a person to *marry* into the family	81	73	79	86
N	21	15	19	30

* Based on percentage of "no" responses.
† Based on belief that alcoholism was an illness.

fused to seek treatment. Among the various potential influencing factors, social class affiliation was most strongly related to rejection of the alcoholic. Surprisingly, however, rejection of the alcoholic was greater by those respondents who viewed alcoholism as an illness, especially where the level of intimacy was low. This suggests, then, that the concept of the alcoholic as a sick person is neither widely held nor very operational for this sample of residents. As Haberman and Scheinberg put it, ". . . the acceptance of the disease concept [of alcoholism] seems to be little more than lip service."[15]

Rejection of the mentally ill person (Table 1) varied with perceived severity as represented by type of help-agent and by violation of one of the tenents of the sick role—the obligation of the sick person to seek competent help. The recognition of the latter legitimates the disease perspective for mental illness and may account for the rejection of alcoholics by those who view alcoholism as an illness. On the other hand, in this pilot study, 47% of those who said they thought the alcoholic was mentally ill also said that "will power" or "desire" to quit drinking was the most effective way to recover. In contrast, only 37% of those who did not view alcoholism from a disease perspective gave this same response. These findings would seem to support Haberman and Scheinberg's statement that the "therapeutic" view of alcoholism is mostly lip service.

The likelihood that community definitions of alcoholism may vary markedly from professional definitions suggests some steps to strengthening programs of rehabilitation of alcoholics. First, it would seem necessary to engage in a massive public education project. There could be several positive outcomes of such a program, such as fund raising, recruitment of workers and establishing school programs, but, most of all, it could serve as a means for validating the definition of alcoholism as a disease. This would seem to be a necessary first step to obtaining public acceptance of specialized and expensive programs of treatment and research in alcoholism. Until such acceptance can be achieved, community-centered service units, in the sense of neighborhood stations or even larger community-wide agencies, would not likely meet with much success.

A part of the public education program must be dissemination of information about the experimental programs now in operation. Many of these facilities are showing very encouraging results, even allowing for variations in quality of the evaluation effort. And while some of the medical and social aspects of rehabilitation may not interest the general public, certainly the economic facts of savings of tax monies cannot fail to impress the taxpayer. The findings of previous research should be more thoroughly exploited to justify an expanded effort to establish more rehabilitation centers.

Finally, the research effort itself must be greatly enlarged. Part of this effort should be directed toward continued evaluation of present organizational arrangements and their effects in programs of rehabilitation. In addition, we must continue to seek new program formats, to experiment with new therapeutic forms and, above all, to seek better means for reaching the problem drinker and potential alcoholic with these services.

Finally, although innumerable studies have pointed to different kinds of factors involved in alcoholism, there obviously is still much that we need to learn about the process itself and about the social and environmental factors which may have causal ties with it.

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The White Psychiatrist Vs the Black Patient

Are Blacks Being Whitewashed?

Few individuals in America today are naive enough to question the fact that racism has been practiced throughout our nation's history and continues to remain a problem today (although the "right or wrong" and "degree of" issues most certainly are debatable concepts for many persons). Prejudices of whites toward blacks have been formed via the family and the individual environment which prevails. "These factors, combined with different shifts in the overall social order," Wilkinson expresses, "show that racism is complex indeed."[1] Psychiatry has not been sequestered from involvement in these conflicts, and particularly when a white psychiatrist is faced with a black patient, some components of the problem increase in complexity.

Myths and Misconceptions of the Past

The perils and misfortunes that have been forced on the black American since the beginning of slavery in this country are too numerous to mention and beyond the scope of this paper. However, it might be pointed out that the medical profession has been as guilty as the rest of society, perhaps more so, in propagating many myths and misconceptions about the black American. For example, in 1867, Dr. Samuel Logan, instructor at a southern medical college, noted that the longer bones of the Negro distal segments placed him "next to Man in the zoological scale."[2] Dr. Seal Harris, vice-president of the Tri-State Medical Society of Georgia, commenting in 1902 on what he felt to be the over-promiscuous nature of the black, rationalized that since nature abhorred promiscuous intercourse, "the abuse of organs of reproduction will certainly result in their becoming functionless."[2] These "scientific" observations were not confined to southern physicians. Dr. Charles S. Bacon, in his article, "The Race Problem," in *Medicine, Detroit* in 1903, is quoted as saying that attempts to educate the Negro to bring him out of his "inferiority" were futile and "a classical education for a Negro whose proper vocation is raising rice or cotton or garden truck is as much out of place as a piano in a Hottentot's tent." He further suggested that white society "help along the process of extinction" of the black race.[2] This medical "proof" of the inferiority of the Negro was unfortunately mirrored in the acme of the laymen's scientific reference literature (and final authority on all matters), the *Encyclopedia Britannica.* In its ninth edition, it states, "The primitive closing of cranial sutures and lateral pressure of the frontal bone" created a physiological limit to the Negro's ability to do beyond the lower functions of life.[2]

Psychiatric Myths

The myths and misconceptions continue to prevail today and are as prevalent in psychiatry as in other areas. As Fischer points out, a great bulk of the professional and lay opinion has for many years indicated that the rate of mental illness for blacks as compared to whites is disproportionately on the side of the blacks. Fischer states that, in his opinion, studies now show that the criteria of conceptualization of problems, types of facilities surveyed, type of measurement used and degree of control of variables show no evidence pointing to a relationship of blacks and increased mental illness. Likewise, he continues, no basis is present for assuming that diagnostic categories on the whole are any more severe. Although in the past, lower socioeconomic status, effects of prejudice and discrimination and poor family structure have all been used as reasons causing increased mental illness in the black; this does not seem to hold

The discussion presented in this paper is meant to encompass the scope of problems arising in biracial psychiatry. The author suggests, however, that the principles, observations and conclusions are applicable to all fields of medical practice today. Mr. Thomas is from the University of Missouri School of Medicine.

true now.[3] Fischer's position is supported by many other researchers.

In particular, there is much discussion regarding the myth or reality of the condition and effects of the black family structure. Moynihan and other researchers have put forth the view that the black family is matriarchal, pathological and disorganized. These factors, then, are believed to be an integral part of black dysfunction in society. However, Ten Houten argues that the research of others shows this assumption to be ill-founded. He states, "The weight of existing evidence . . . suggests that the stereotype of lower class black families as matriarchal, pathological and approaching a state of complete breakdown may in reality constitute social mythology."[4] Ten Houten feels that, in reality, such a stereotype has been disproved by "a convincing body of social research."[4]

Likewise, McArdle quotes Whitney Young as saying that the position that American professionals have is a misconception of the black family as a pathological group made up of "unwed mothers, illegitimacy, the dominant matriarch and the emasculated male." Young is further quoted as stressing that "the black family, in reality, is a strong, resilient, adaptive institution." He feels that the majority of the families are "stable," even in the face of racism and "against overwhelming odds."[5]

Ten Houten brings to light the point that research on blacks is in itself a weapon and resource controlled by whites. These are then used as political tools to contribute to further control and interference.[4] This research dealing with the black and his community has caused what Comer refers to as the "black backlash."[6] Comer states that black critics have valid arguments regarding research about black communities and ". . . they are exploited to advance careers of students and researchers while little effort is made to use research finding to benefit the laboratory communities." Further, some "social scientists and their institutions" have not used their data in an "ethical and responsible" method. Comer notes that Arther Jensen's report, "How Much Can We Boost I.Q. and Scholastic Achievement?" published in the *Harvard Educational Review,* "is a striking example of why the black community is reacting negatively to psychiatry and social science research and interpretation."

Arther Jensen, a psychology professor at Berkley, has published reports of his views which have "caused a furor by proclaiming that social class and black-white differences in intelligence are due largely to heredity."[7] Golden, in a refutation of Jensen's position, quotes him as saying that lower class black children do poorly in school, etc. because they are "innately less intelligent or deficient in the kind of intelligence necessary for academic achievement."[7] Jensen cites examples such as the relative "failure" of the Head Start Program to back up his studies. Jensen's critics and opponents argue that he has misinterpreted his statistics, based his views on fallacious reasoning and false logic and that his ". . . position is untenable from a scientific point of view." Most critics feel that Jensen, for all practical purposes, has disregarded the importance of environmental influences on the children involved in his sample.[7] As Comer says, it is impossible to make comparisons between blacks and whites until blacks have had the same social opportunities and experiences as whites.[6]

The important point for white psychiatrists to follow, then, is that if they are to adequately deal with their black patients, they must realize a number of things before the onset of therapy. First, racism has always been present in America and merely by being part of his society, both the psychiatrist and the patient will be under its effects, whether consciously or not. Secondly, there are numerous "myths and misconceptions" about the black, his family, culture and social make up, and for proper management, the psychiatrist must strive to gain reality in these areas. Finally, the patient has been affected equally by racism and will be entering therapy with prejudices and misconceptions of his own.

Black Identity

A situation called the "black identity crisis" by Jenkins refers to the point when blacks ". . . realized complete cultural assimilation would mean destruction of self-image and psychological annihilation for black people."[8] Jenkins feels reaction to this concept gave impetus to black strivings to relate to their position in the world and mankind. "Black Power" movements are a result of this reaction and are attempts to relate this desire into meaningful action for the black man on the street. Much integration, says Jenkins, is based on blacks becoming whites, and with this "there is real danger of psychologic annihilation." This threat has spurred blacks to defend social, psychological, economic and cultural areas. Lacking an existent cultural base in America, blacks now are beginning to seek African philosophy and ethics.[8]

"The black identity crisis has thrust upon the community psychiatrist certain clean cut responsibilities if he is to deal with the urban population."[8] Jenkins proposes directives for the psychiatrist to meet. One is to establish a concise and realistic image for black people which allows "beneficial accommodation to be made with other groups in society." He feels that help should be given to remold black family structures (if, indeed, they really need it, as questioned above by Ten Houten, McArdle, etc.). He sees the need to reconciliate blacks and whites as "peer groups" respectful of one another and "aware of their mutual interdependence."[8]

These goals set out by Jenkins are not easily achieved as pointed out by Laurence. The potential of various efforts to resocialize blacks and whites into a united society is limited, even with large scale projects, when these efforts are determined by the extent to which the subject receiving these efforts corresponds them with the reality around him. In other words, what is being taught must not conflict with the individual's own experience. Regardless of the amount of medical care, etc. offered, socialization is not going to change when the needs of housing, jobs and social dignity are not met.[9] Because of these realizations, the black population is beginning to stop relying on the white for guidance and, instead, is beginning to unify from within. Dizard's studies and others, as well, seem to show that there is an increasing flow toward the unification of the black population. "In any event, the immediate future is likely to see an increase in the number of adherents to black identity and group pride, and with this increase, a growing sharpness in the conflict between black and white."[10]

Attitude: A Prelude to Therapy

Thus, the black patient brings to the white therapist a set of defenses and preconceptions which must be dealt with before therapy can proceed. "The distrust which the Negro often brings to the white therapist may manifest itself in obscure ways which lead either therapist or patient to misinterpret what is going on."[11] Often when the patient, lacking motivation for treatment, is told he must learn to live with the symptoms, he attributes this to "anti-Negro" prejudice in the psychiatrist. Similarly, it is often reported that a black patient needing psychiatric hospitalization (or members of his family who do) may feel that if he were white, he would be treated on an outpatient basis. Rosen and Frank have documented cases where their black patients ". . . were convinced that the recommendation for hospitalization was a thinly disguised means of rejecting them." Likewise, a black patient who accepts hospitalization, but finds no psychiatric beds are available at that time and is put on a waiting list ". . . almost certainly interprets it as racial prejudice on the part of the referring psychiatrist or hospital administration." This situation arises, as pointed out by Rosen and Frank, "even in the total absence of discriminatory policies." Many blacks tend to defend themselves against anticipated demands from the white by "assuming an exaggerated air of indifference and stupidity." This occurs less now than several years ago, but the white psychiatrist may be misled to an unwarranted diagnosis of mental deficiency or, perhaps, even a simple schizophrenia. On the other hand, the same patient would present to a black psychiatrist in a normal manner and exhibit normal intelligence and responsiveness.[11]

White psychiatrists also must keep in mind when evaluating a black patient that (1) as a minority group member, his experiences differ from those of a white person of the same socioeconomic status; (2) intermittent school attendance or frequent job changes may not result from instability but, rather, situations which are forced upon the patient; (3) jail sentences, etc. may not necessarily have the same implications for a black as for a white in that in many communities, particularly in past years, arrest "on suspicion" is more prevalent with black than with white citizens. Thus, in general, most black patients seen for consultation, evaluation or treatment have had a lifetime of unpleasant experiences in relation to their race. Accordingly, these patients are both "race conscious and resentful of the imperfections of our democracy," and the psychiatrist must be aware of this perspective to successfully interact on a therapeutic basis.[11]

Racism obviously contradicts the interpersonal values necessary for psychiatric relationship of psychiatrist and patient. "The white therapist who is susceptible may find it necessary to acquire certain additional sociocultural facts and skills if he is to engage in biracial psychotherapy."[12] The black and white, even when in a therapeutic relationship, find it quite difficult to avoid slipping into culturally-preformed countertransferences of identity and stereotype. When the white physician refuses to recognize the true identity of the black patient, the patient may retaliate with anger, distrust, fear and resentment. This type of response might be termed a "negative" transference, but in actuality, ". . . it is really a pseudotransference response by the black patient."[12] These conditions make the black patient difficult or impossible to treat by the white psychiatrist. The psychiatrist who has racist feelings (either conscious or subconscious) will find repeatedly that black patients are "untreatable" since they respond negatively (which is not surprising) to his prejudices, to his negative countertransference and to his rejection of their social concepts. This has led some white therapists to state that "black people are generally not suitable candidates for psychoanalysis."[12]

For the white psychiatrist to deal with the black patient, in view of the formidable difficulties already mentioned, it is imperative for him to get his message across and communicate in a manner which is meaningful to his patient. As the Leightons observed in their classic work with the Navaho Indians, if whites want to deal with Navahos, they should use Navaho beliefs and try to incorporate their message into them. Kunitz, quoting the Leightons, gives the example that if a Navaho is told to take digitalis everyday, he will probably take a few and forget them. If he is told that this green medicine comes from leaves of foxglove and his body must never be without it any more than his mind without song, and he must take it each morning of his life when the first brightness of day is in the East, there is a better chance of his following instructions.[13]

This degree of melodrama, of course, is an overstatement in relation to the purpose here, but it is a colorful example and appropriate for demonstrating the importance of understanding the patient's cultural and social background. Equally important, it is necessary to realize that the black is striving toward his "identity" and toward making black more than "not white." He is building pride in his culture and in himself. The psychiatrist must realize this and, indeed, encourage it. Jenkins comments, ". . . psychiatrists should support every ethnic group's effort to view its physical characteristics with respect. Self-degradation practiced by the vast majority of black citizens should not be encouraged by any organized body of professionals, least of all doctors. . . ."[8] Jenkins suggests, on the other hand, that black racism "does not heal the wounds of self-depreciation" and teaching a black child to hate whites "does nothing for this child's self-esteem as a human being."[8]

Doctor vs Patient

"Racism, by its very nature, negates the ideals of psychotherapy."[12] Although only one of many problems that the psychiatrist faces in modern practice, "it is almost omnipresent in the doctor-patient relationship. Among psychiatrists, class biases and prejudices are not infrequently built in and are often components of the psychiatrist's upper middle class life style."[12]

There is a system of "etiquette" which the doctor-patient roles traditionally follow and, likewise, a system for black-white interaction. These two systems in this circumstance are interwound and give a resultant system of interaction. Adams says he feels that the black must come to terms with what he calls "negritude." When racism holds an "anti-Negro" position for the dominant group, the resultant attitude for the black patient is a low level of self-esteem. This low level of self-esteem is so typically commonplace that, as Adams states, the black self-hatred is "ubiquitous among Negroes who are exposed to racist evaluations before they enter into psychotherapy."[12]

This situation is demonstrated by a theory which Pinderhughes offers to explain the basic black-white relationship. He refers to his theory as a "group folie a'deux." Pinderhughes feels that whites have a primative paranoid reaction toward blacks. He theorizes that there is a "hierarchy-related paranoia" based on the false belief that others are viewed as "high or low types," and the blacks, filling a low type in their delusion, are related to unpleasant feelings. He also notes an "appearance-related paranoia" based on association of black to "evil, dark and mysterious" experiences as compared to white which connotes "bright, noble or good" concepts. A "group-related paranoia" is described as when persons of different races, nationality, religion, etc. are seen as objects from which to keep away with "vigilant defensiveness and suspicion." Pinderhughes also feels that there is a "segregation-related paranoia" when "any person or group that is segregated is associated in the mind, in unconscious thinking processes, with any mental representations which are also segregated."[14] Examples are excreta, destructive aggression and sexual feelings. Thus, when looking at the blacks (a segregated group), an association between the black and dirty, smelly, destructive and sexual sensations is made. The "folie a'deux" concept now relates, in that by "coercive modification of the psychology, character and living circumstances of black men, American white men modified American black men to fit the images in their minds.[14] The subordinated blacks have come to share in this belief in the past, contributing to their own disillusionment. Black realization of this is a major factor prompting the Black Power movement Pinderhughes implies.

"Reacting against exploitation as well as against its buttressing ideology, the black individual often carries into psychotherapy a heavy predisposition toward a variety of negative emotions. He may show anger, fear and resentment, especially if the therapist is white."[12] On the whole, white physicians and black patients cannot interact in psychotherapy without racial distortions and cultural systems of racist transference and countertransference taking place. Although this may not be the prime area of difficulty for their encounter, it is clearly present and ". . . a fertile field for negative transference and countertransference."[12]

"Biracial psychotherapy is necessarily an encounter between Whitey and Soul Brother, each with his private set of sentiments referring to race and racism, each in fantasy investing the other with 'attributes' derived from his individual past experiences of whites and blacks."[12]

Adams offers suggestions of ways in which white psychiatrists (or physicians in general) might minimize their racist distortions. First is a positive discussion of racial differences. Patients' diversity, as well as their sameness, is important in psychotherapy and it is futile to not discuss race in a "racist world." Secondly, the white psychiatrist must seek out cultural education independently. Though useful information and feedback come from therapy sessions, it is imperative for the psychiatrist to ". . . deepen his understanding of the conditions in which black Americans are living and have lived" by supplementing his knowledge through publications and literary material, through civic involvement and through first-hand participation in community projects. This "deeper understanding" will give insight in dealing wisely with all patients, black or white. Third, greater introspection and fuller personal analysis must be attained in the white therapist. A personal psychoanalysis can help erase the distorted perspectives toward race held within the white psychiatrist. Finally, is what Adams terms as "salutary personal contacts with black people." If one first looks to the past, he should try to find friendly contacts early in childhood with blacks and, hence, rebuild an atmosphere in which racism is reduced. In the present, psychiatrists must find black contacts through the types of community and civic involvement mentioned above and find types of remedial experience "that shifts their perspectives away from racism and leaves them less prejudiced, or less prone to negative countertransference."[12]

Black Attitudes

Insight into how the black patient perceives the problem is as important as the white psychiatrist's view. An interesting study was conducted in the Woodlawn area of Chicago (a low income area which is 98% black) by Brieland. This survey points out some enlightening facts which are indicated by the attitudes of the 380 black persons in the sample. Of the group interviewed, 50% did not have a private physician. Of the 50% who did, 22% had white physicians, 22% had black physicians, 4% claimed to have private physicians of both races and 2% would not indicate the race of their physician. In response to the question, "If both were equally good, would you prefer that (your physician) be Negro or white?," those interviewed by a white interviewer had 18% preferring black, 8% preferring white and 74% with no preference. Those interviewed by a black had 66% who preferred a black physician, 11% who preferred a white physician and 23% with no preference. On an overall question including race preferences for several of the "helping professions," "the strongest preference was expressed for black physicians and the least for black lawyers."[13] However, when competence came into play, responses to the question, "Would it make a difference in your choice if a white person were better qualified?," 94% answered yes to a white interviewer and 83% answered yes to a black interviewer. This question was asked only of those who preferred a black physician in the question above. When questioned about the characteristics of "helping people" (physicians, lawyers, teachers, caseworkers, etc.), the majority chose black persons for the most favorable answer. Brieland summarizes his study by saying whites are not unwelcome as physicians by blacks, but the need to increase the number of blacks in the field is suggested. It also emphasizes for whites who work with blacks the "importance of being sensitive to the broad implications of the emerging emphasis on black identity."[15]

More specifically related to psychiatric help for the black, a study of attitudes toward mental illness by Ring and Schein in a black community (in Philadelphia) noted that "the general trend in attitudinal responses was in the direction of acceptance and understanding."[16] The people involved in the study had strong correlation with an "enlightened mental health viewpoint." They tended to have a pronounced degree of willingness to associate with ex-mental patients on a social basis (although a reluctance for ex-patients to marry into their families). A most important point to realize for the directives of this paper is that nearly 90% of the people involved in the study desired the use of professional medical help with emotional or mental problems. Among members who had sought "psychological-emotional" help in the past, 85% contacted a physician, 11% sought help at medical institutions and less than 4% used the services of nonmedical help, e.g., social workers, clergymen or teachers. This study suggests that the people in the group strongly desire professional medical help for their psychiatric problems. The desire should be cultivated and purposeful actions should be made toward an aim of treating unmet needs of the community.[16]

From the above two studies, three points are outstanding: (1) The black community actively desires professional help for psychiatric problems; (2) There is a definite need for more black psychiatrists; and (3) White psychiatrists must become more sensitive to the needs of the black community.

Black vs Black

One must not forget that black psychiatrists are not without racially-related problems themselves when working with black patients. Black psychiatrists who work with black patients have an "unusual burden," for they must deal with both their clients' and their own feelings about being black. They must deal not only with their own self-image as projected onto other blacks, but, also, with their incorporation of white stereotypes of how black people think, act and feel. Thus, black psychiatrists have a countertransference peculiar to themselves which must be resolved for successful client-therapist relations. There also is the problem of most black therapists getting their training from white teachers, etc. When they need help and must turn to someone in a supervisory position, that person is usually white. Being white, the person in the supervisory position probably has misconceptions and, in short, a lack of knowledge about the black folkways, motivations, environment and the true black "psyche." Calnek contends that the black therapist must wrestle between a tendency of denial of identification with his black client as a fellow black and an attitude of over-identification which, thus, negates his objectivity. Nevertheless, the black therapist generally has greater success with the black client than does the white therapist.[17]

The most severe problem involving black psychiatrists is one of numbers; there simply aren't enough of them to fill the need. This stems most importantly from the black's low percentage of medical school enrollments. In 1969, there were 35,809 students enrolled in 98 medical schools (this figure doesn't include the Canadian and Puerto Rican schools). Blacks made up only 2.39% of this enrollment. Of this 2.39%, more than three fifths were in two medical schools (Howard University College of Medicine and Meharry Medical College). This points out the importance of recruiting more blacks for the medical profession and realizing the need for "academic and financial aid programs to dovetail with recruitment."[18]

Finally, when discussing the problems of black professionals, it is only realistic to mention their task within their race. Williams, explaining the dilemmas facing black professionals, expresses the view that before real progress can begin, blacks must begin a "unification." He states that ". . . men do not build for others, men build for themselves."[19] He feels that blacks will not achieve a real sense of pride in black identity by "pats on the back and other reinforcements" from white America. "There can be no black-white unity until there is first some black unity . . . ." Williams quotes Malcom X, ". . . we cannot think of uniting with others until we have first united among ourselves."[19]

The Goal

The previous studies and surveys cited pertain to the need for white psychiatrists to become more sensitive to the needs of the black community. It has been the primary goal of this discussion to demonstrate that "need." Hopefully, this will not be an end point. Williams expressed it well in his letter to the editor of the *Journal of Operational Psychiatry:* "I just do not feel the rhetoric route is going to have any immediate or long-range effect upon the issues facing us. It is a waste of my time and yours."[19] In conclusion, allow me to add to Williams' quote that the "rhetoric" and research need not be a "waste," but, instead, an initial and purposeful step toward a long overdue repair of a flaw in American psychiatry, medicine and, unfortunately, American society. If, however, we do not go beyond this initial step, as Williams suggests will happen, what a "waste" for the psychiatrist and patient and, indeed, for all concerned.

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(Continued on page 52)

HUGH S. HARRIS, JR., M.D., WILLIAM L. DONEGAN, M.D.
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Status of Adrenalectomy in the Treatment of Metastatic Breast Cancer

A Review of 84 Patients

THE ORIGINS of the use of bilateral adrenalectomy in attempting to palliate disseminated cancer revolves largely around the work of Dr. Charles Huggins who, along with Scott in 1945, first reported the use of this procedure in a patient with metastatic carcinoma of the prostate.[1] In 1952, after development of more adequate adrenal cortical steroid replacement, Huggins and Bergenstal reported the first instances of response from metastatic breast cancer to bilateral adrenalectomy.[2] The following year, Huggins and Dao reported on a series of 55 patients with advanced mammary cancer who had undergone this procedure.[3]

The role of bilateral adrenalectomy in the treatment of disseminated breast cancer was carefully defined by the Joint Committee on Endocrine Ablative Procedures in Disseminated Mammary Cancer in 1962. This committee, which was made up of individuals sponsored by the American College of Physicians and the American College of Surgeons and representing 13 different institutions, analyzed the clinical data from nearly 700 adrenalectomies and defined the criteria for clinical selection of patients for this procedure.[4, 5] It is now apparent that bilateral adrenalectomy holds an important place in the armamentarium of the surgeon dealing with patients having disseminated breast cancer provided the selection of patients for this procedure is done carefully and that specific technical aspects of the procedure are recognized. Previously, a review of the first 64 patients having undergone bilateral adrenalectomy at Ellis Fischel State Cancer Hospital in Columbia and at Barnes Hospital in St. Louis was reported.[6] The present study serves to reevaluate these patients along with patients who have subsequently undergone this operation at these two institutions.

MATERIAL AND METHOD

Through May of 1970, a total of 86 patients have undergone bilateral adrenalectomy at Ellis Fischel State Cancer Hospital and at Barnes Hospital. Eighty-four of these patients had been operated on more than six months prior to this review and can be evaluated in terms of response.

While many of the adrenalectomies in the Barnes Hospital group were performed through a posterior extraperitoneal approach, all of the adrenalectomies done at both institutions during the past ten years have been performed by means of a transabdominal approach, as has been described by Spratt.[7] This approach is preferable since it permits careful evaluation of the extent of intraabdominal metastatic disease and allows oophorectomy to be performed through the same incision.

A careful schedule of steroid replacement (Table 1) is begun on the evening prior to surgery, continued through the operative period and then the dose is slowly tapered to maintenance level usually by the fifth postoperative

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This study presents a reevaluation of the first 64 patients who have undergone bilateral adrenalectomy at Ellis Fischel State Cancer Hospital in Columbia and at Barnes Hospital in St. Louis along with patients who have subsequently undergone this operation at these two institutions. The authors are from Ellis Fischel State Cancer Hospital where Doctor Harris is a Consultant, Doctor Donegan is a Surgeon and Doctor Spratt is Chief Surgeon. Doctor Spratt also is Director of the Cancer Research Center and Doctor Donegan is Director of the Cancer Research Unit at the Center. This work was supported in part by U. S. Public Health Service Grant # CA-08023.

TABLE 1

A METHOD OF STEROID REPLACEMENT TO BE USED IN CONJUNCTION WITH ADRENALECTOMY*

Day	*Medication*	*Route of Administration*
Day prior to surgery	Cortisone 50 mg b.i.d.	Oral
Day of surgery	Hydrocortisone 100 mg 1 hour prior to surgery	Intramuscular
	Hydrocortisone 100 mg during surgery	Intravenous
	Hydrocortisone 300 mg during remainder of day and night following surgery	Continuous intravenous infusion
First postop day	Cortisone 50 mg every 6 hours	Intramuscular
Second postop day	Cortisone 25 mg every 6 hours	Intramuscular
Third postop day	Cortisone 25 mg every 8 hours	Intramuscular
Fourth postop day	Cortisone 25 mg every 8 hours	Intramuscular or P.O.
Fifth postop day	Cortisone 25 mg b.i.d.	Orally
and maintenance	Cortisone 25 mg b.i.d.	Orally

*This must be accompanied by adequate salt intake.

day. A bilateral subcostal incision through which the abdominal cavity is entered and explored is preferred. If extensive metastases in the liver are encountered, the procedure is terminated. If the liver is relatively free of metastatic cancer, the duodenum is mobilized sufficiently to permit entry into the right retroperitoneal space and the right adrenal gland is removed by blunt and sharp dissection from its resting place in the angle formed by the upper pole of the kidney and the inferior vena cava. There generally are several venous tributaries draining directly into the vena cava. The successful removal of the gland requires the use of long (8- to 12-inch) instruments with careful retraction and exposure. We have found the 10-inch "Hemoclip" applicator of considerable usefulness in this procedure. Exposure of the left adrenal gland usually can be accomplished by mobilization of the spleen. Control of its venous supply is generally less hazardous because of the longer solitary left adrenal vein entering the left renal vein.

It is important that all adrenal tissue be removed. If one is not careful, a portion of the upper pole of an adrenal may easily be incompletely removed and, for this reason, each resected gland should be carefully inspected. Also, it is important during the initial exploration of the abdomen to search for aberrant adrenal tissue. Aberrant adrenal tissue is uncommon, but when present, is most frequently in the region of the kidney. It has been reported in various locations in the abdomen, however, including the pelvis and in bizarre sites such as hernia sacs and the head and neck region.[8] The presence of unrecognized accessory adrenal tissue or of incompletely excised adrenal glands may account for some of the failures of this procedure in producing palliation.

Maintenance steroid replacement generally is 25 mg of cortisone acetate taken orally twice a day with only the very rare patient needing one of the mineralocorticoids to supplement this. Each patient at the time of discharge is carefully briefed on the necessity of maintaining steroid supplementation. Each is encouraged to carry in her possession at all times a small card which identifies her as having had a bilateral adrenalectomy and needing increased steroid dosages in times of certain stresses. Despite these precautions, the occasional patient will develop Addisonian crisis following failures to take the required steroids.

RESULTS

According to criteria established previously by the Joint Committee, a positive or favorable response to adrenalectomy is defined as objective regression of metastatic disease present for six months or more after adrenalectomy. Those patients in whom there is subjective improvement only, regardless of how dramatic this may be, and those in whom certain metastatic lesions regressed while others progressed are all considered nonresponders. In this study, one of the patients having objective response to adrenalectomy failed to have symptomatic response.

Table 2 indicates the overall response and operative mortality among the 84 patients. Most of the patients at Barnes Hospital were operated on in the 1950's during a period in which the

TABLE 2

PATIENTS UNDERGOING BILATERAL ADRENALECTOMY FOR METASTATIC MAMMARY CANCER AT BARNES HOSPITAL AND ELLIS FISCHEL STATE CANCER HOSPITAL

Institution	*No. of Patients*	*Postop Deaths*	*Objective Responders*
Barnes	42	9(21%)	11(27%)
EFSCH	42	2(5%)	16(38%)
Total	84	11(13%)	27(32%)

clinical selective criteria, as well as operative techniques, were being developed. Many of these patients had far advanced disease and were poor operative risks. Seven of these deaths at Barnes were due to postoperative pulmonary insufficiency in patients having advanced pleural-pulmonary metastases. All of the adrenalectomies performed at Ellis Fischel were subsequent to 1962.

Criteria considered in selecting patients for bilateral adrenalectomy include consideration of response to previous treatment (particularly to therapeutic oophorectomy and to androgen therapy), the site of metastatic disease, the length of free interval between the time of original treatment of the breast cancer and the first apparent recrudescence of the disease, the age of the patient, the general condition of the patient from the standpoint of overall operative risk and the reliability of the patient. Table 3 demonstrates the importance of the free interval as related to objective response to adrenalectomy in the 84 patients in this group. Those patients having no free interval, i.e., those who appear for initial treatment already having mammary cancer beyond the bounds of radical mastectomy, respond as well to adrenalectomy as the overall group. However, those patients for whom a free interval did exist, but whose free interval was less than 18 months, responded extremely poorly to adrenalectomy while those patients with free intervals of greater than 18 months had a significantly better response rate. This difference is statistically significant with a p value of .02.

TABLE 3

RESPONSE TO ADRENALECTOMY IN RELATION TO THE FREE INTERVAL

Length of Free Interval	*No. of Patients*	*No. Responding*
None	26	11(42%)
Less than 18 months	18	1(5.5%)
18 to 35 months	21	8(38%)
36 months or more	19	7(37%)
Total	84	37(32%)

TABLE 4

RESPONSE TO ADRENALECTOMY IN RELATION TO PREVIOUS OBJECTIVE RESPONSE TO OOPHORECTOMY

Response to Oophorectomy	*Menstrual Status at Time of Oophorectomy*	*Total No. of Patients*	*No. of Patients Responding to Adrenalectomy*
Positive	Premenopausal	11	5
	Postmenopausal	0	0
Negative	Premenopausal	11	2
	Postmenopausal	7	3

Table 4 indicates the response to adrenalectomy in relationship to previous response to oophorectomy. Of 11 patients who had an objective response to oophorectomy, all of whom were postmenopausal, five subsequently responded to adrenalectomy. Of 18 patients who had no objective response to oophorectomy, five subsequently responded to adrenalectomy.

Table 5 indicates response to adrenalectomy when considered in relationship to previous response to androgen therapy. A third of those patients who had no apparent response to androgen therapy subsequently responded to adrenalectomy.

Table 6 indicates the relatively favorable response rate in those patients in whom the metastatic disease is apparent only in soft tissues (breast, skin, subcutaneous tissue and lymph nodes) as opposed to patients with intrathoracic, hepatic or central nervous system metastases. The response rate of patients who have pulmonary or pleural metastases has been poor, and patients having dyspnea as a result of pulmonary or pleural metastases have had a prohibi-

TABLE 5

RESPONSE TO ADRENALECTOMY IN RELATION TO PREVIOUS RESPONSE TO ANDROGENS

Response to Androgens	*No. of Patients*	*No. Responding to Adrenalectomy*
Positive	14	7(50%)
Negative	28	9(32%)
Undetermined	16	3(19%)

TABLE 6

SITE OF METASTATIC DISEASE PRESENT AT TIME OF ADRENALECTOMY

Site of Metastatic Disease	*No. of Patients*	*No. Responding to Adrenalectomy*
Soft tissue and/or bone only	44	22(50%)
Pulmonary or pleural	31	4(13%)
Liver	16	1(6%)
Central nervous system	4	0

tive postoperative mortality. The differences in response rate among those patients having metastases limited to soft tissue or bone or both, when compared with those having pulmonary, hepatic or central nervous system metastases, is quite significant, having a p value of .001.

Table 7 indicates the poor success rate which we have encountered in younger patients, only one out of 13 women less than 40 years of age at the time of adrenalectomy having a favorable response to the procedure. These apparent differences in response rates according to age cannot be proven statistically, however.

A total of 25 patients had one or more vaginal smears obtained prior to adrenalectomy in an attempt to estimate the presence of estrogen activity as manifested by the degree of maturation of the vaginal epithelial cells. Of 14 patients who had vaginal smears which seemed to indicate the presence of significant estrogen effect despite the patient having sustained either natural or surgical menopause, five had objective response to subsequent adrenalectomy. There were six patients in whom the pathologist was unable to evaluate the smear, primarily because of inflammation, and three of these patients responded to adrenalectomy.

Discussion

Locally recurrent breast cancer on the chest wall or in adjacent lymph node groups is best treated by radiotherapy or surgery. Similarly, localized bone pain from metastases also is best treated locally with radiotherapy. Local recurrence of breast cancer, however, is almost always followed by disseminated disease.[9] It is for this stage of dissemination that we generally reserve endocrine manipulation for palliation of the tumor.

TABLE 7

RESPONSE TO ADRENALECTOMY IN RELATION TO THE AGE OF THE PATIENT AT ADRENALECTOMY

Age in Years	*No. of Patients*	*No. Responding Objectively to Adrenalectomy*
Less than 40	13	1(8%)
40-49	27	10(37%)
50-59	29	12(41%)
60 or more	15	4(27%)
Total	84	27(32%)

In the premenopausal (within one year after cessation of menstrual periods) woman with disseminated breast cancer, the preferred treatment is surgical oophorectomy. Patients in this category who do not respond to oophorectomy only rarely respond to subsequent adrenalectomy. In the postmenopausal woman, however, oophorectomy alone probably plays a little useful role in the palliation of disseminated breast cancer. Barlow *et al* were unable to demonstrate that the postmenopausal ovary made any contribution to estradiol production. Upon reviewing the literature, they were able to find the reports of only 16 postmenopausal women who had had a favorable response to oophorectomy.[10] Oophorectomy unaccompanied by adrenalectomy is probably not warranted in the treatment of disseminated breast cancer in the postmenopausal woman.

The response to previous androgen therapy probably is of somewhat less importance in selecting patients for adrenalectomy, although there is a tendency in most large series of adrenalectomies for there to be a higher response rate among those patients who had previously responded objectively to androgen therapy. The decision to offer a trial of androgen therapy, rather than to proceed directly to a major endocrine ablative procedure in a patient with progressively advancing disseminated disease, is a critical one. Dao and Nemoto showed that many such patients in whom ineffective hormonal therapy was initiated died prior to an opportunity for adrenalectomy. Their studies seem to indicate that there was a significant loss in the number of patients capable of undergoing adrenalectomy, especially those having pulmonary metastases.[11] Similarly, Delarue has indicated that it may be hazardous to attempt androgen therapy in the woman with rapidly progressing disseminated disease.[12]

Of considerable importance in the selection of patients for adrenalectomy is the consideration of the free interval, i.e., that period of time during which there is an absence of apparent disease between the primary treatment of the breast cancer and its reappearance. Our data indicate that it is rare for a woman having a free interval of less than 18 months to respond to adrenalectomy. This is consistent with the findings of other investigators. It is of interest, however, that those patients who have *no* free interval, i.e., those who appear for initial treatment already having metastatic disease beyond the bounds of radical mastectomy, respond to adrenalectomy as well as those patients who have free intervals of several years. This has been observed by Cutler who feels that these patients fall into a special category, being atypical with respect to the biological characteristics of their breast cancer and in regard to the promptness with which they sought treatment.[13] There is no reason to think that the patient who presents with inoperable breast cancer has a disease with biological characteristics which are necessarily similar to the patient who presents with operable breast cancer but who develops metastatic disease within a few months following primary treatment.

Just as the site of metastatic disease plays an extremely important role in the prognosis of any patient with metastatic breast cancer,[13, 14] it also is useful in predicting response to therapeutic efforts, particularly adrenalectomy. The response rate to adrenalectomy in those patients having metastases which are apparently limited to the soft tissues of the breast, skin, subcutaneous tissues and lymph nodes and/or the bony skeleton is significantly better than those patients having evidence of visceral, i.e., pulmonary or hepatic metastases. A very ominous sign is involvement of the central nervous system by tumor. Other series have reported somewhat more optimistic results from adrenalectomy in patients having pulmonary metastases. Dao points out the high rate of failure from hormones in this group of patients and strongly advocates adrenalectomy as their primary treatment.[11] Similarly, Mye and Neal have reported a series of patients having pulmonary metastases who had a rather high response rate from adrenalectomy.[15] Probably limited involvement of the liver with metastatic tumor is not a contraindication to the procedure since Demoto and Dao have reported that if less than 30% of the liver parenchyma is replaced by tumor, as estimated at the time of laparotomy, the patient responds to adrenalectomy as well as if metastases were limited to bone and soft tissue.[16]

Although the technique of obtaining vaginal smears from patients having disseminated breast cancer in an attempt to estimate the presence of estrogen activity has been of limited usefulness in our experience, it has proved helpful in Fracchia's larger series of patients in whom there was an objective response to adrenalectomy in 20 out of 27 postmenopausal patients in whom vaginal smears were thought to show an unexpectedly high percentage of cornified cells.[17]

This is an area in which there would seem to be available specific biochemical studies to predict those patients who would respond to adrenalectomy solely on the basis of steroid excretion. Two biochemical discriminants or formulae based on hormone excretion have probably attracted the most interest in recent years. The Bulbrook-Hayward discriminant[18] is based on the urinary excretion of 17-hydroxycorticosteroids and Etiocholanolone. The Peter Bent Brigham Hospital discriminant[19] compares the excretion of 17-hydroxycorticosteroids and 17-ketosteroids in the urine with and without ACTH stimulation. This formula also uses the free interval as measured in months in its calculation. These discriminants, however, have been used only in retrospective analyses and have not yet been proven useful in selecting patients for adrenalectomy.

Conclusions

In view of the limited usefulness of laboratory procedures, we are left almost entirely with clinical criteria in the selection of patients for adrenalectomy. Based on the study of our own patients in conjunction with the literature available today, we have come to the following conclusions:

(1) The patient with disseminated breast cancer who is most likely to respond to adrenalectomy is that patient with a free interval of more than 18 months, who is more than 40 years of age, whose metastatic disease is limited to soft tissues or bone and who possibly has shown a favorable response to previous androgen therapy. (2) Furthermore, if the patient is premenopausal at the time of the appearance of metastatic disease, she is considerably more apt to respond to adrenalectomy if she has first had an objective response to castration. Those patients in this category who had not responded to castration probably should not undergo adrenalectomy. (3) Those patients having primary inoperable breast cancer, including those with inflammatory cancer, frequently respond favorably to adrenalectomy provided other criteria also place them in a favorable category. (4) The relative contraindications to adrenalectomy should include free intervals of less than 12

months, the presence of central nervous system metastases or of advanced hepatic or pleural-pulmonary metastases. (5) A patient who is uncooperative or unreliable or who is not a reasonable operative risk should not be considered for adrenalectomy. (6) The techniques involved are standardized and effective and can be safely performed in the vast majority of candidates for this procedure provided the surgeon has an adequate knowledge of the anatomy of this region, attains adequate exposure and has suitable instruments at his disposal.

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The White Psychiatrist Vs the Black Patient

(Continued from page 46)

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In Memoriam

Rollins, Harry D., M.D., Winona, a graduate of St. Louis Physicians & Surgeons College, 1918; member Carter-Shannon County Medical Society; age, 73; died Oct. 31, 1971.

Hogeboom, George W., M.D., Delray Beach, Fla., a graduate of Rush Medical College, 1919; member Greene County Medical Society; age, 77; died Nov. 6, 1971.

Zillgitt, George H., M.D., St. Louis, a graduate of Washington University, 1939; age, 62; died Nov. 12, 1971.

Roberts, L. Marvin, M.D., Kansas City, a graduate of Baylor University, 1952; member Jackson County Medical Society; age, 47; died Nov. 13, 1971.

Blacklock, David E., M.D., King City, a graduate of the University of Louisville, 1908; age, 93; died Nov. 18, 1971.

Boteler, George M., M.D., St. Joseph, a graduate of Ensworth Medical College, 1910; age, 84; died Nov. 26, 1971.

Enloe, L. David, M.D., Jefferson City; a graduate of Washington University, 1913; age, 80; died Nov. 28, 1971.

Special X-ray Exhibit

SIDNEY RUBIN, M.D., RODGER LAMBIE, M.D. *and*
EDWIN HERMAN, M.D., *Kansas City*

Radiologic Problem Case

A 16-YEAR-OLD female student was admitted to the hospital on Feb. 19, 1971 complaining of weakness and tarry stools. She had been ill for approximately ten days prior to this admission when she developed a diarrhea which was abrupt in its onset and was considered to be a "viral infection." She had noted persistent black stools and a progressive weakness, although she continued with her usual school activities.

Past History: The past history was most informative in that at six years of age, she had an intestinal resection following an episode of intestinal bleeding. The diagnosis made on the excised specimen was that of "polyp" of the small bowel.

Family History: The family history revealed a similar disease in the patient's father. He had been diagnosed as having the Peutz-Jegher's Syndrome. An uncle was known to have the Gardner's Syndrome.

Physical Examination: The patient's pulse rate was 89; temperature, 99.2 F; respiration rate, 18; and blood pressure, 120/70. The patient was pale but adequately nourished. Pigmented melanotic spots were observed about the lip and perioral region. No pigmentation was noted on the extremities. There were no soft tissue tumors observed on the skin.

Laboratory Data: The hemoglobin level was 7.3 gm/100 ml; hematocrit value, 22%; white blood cell (WBC) count, 7,000 with the differential of 44% polys, 18% stabs, 28% lymphs (several atypical) and 10% metamyelocytes. The urinalysis and SMA.12 were normal except for a decreased total protein and increased alkaline phosphatase. Prothrombin time was 13.5 seconds (control 13 seconds). PTT was 72 seconds.

Endoscopy with a duodenal visualizing scope was performed, and a polypoid lesion was detected in the stomach high in the cardia, as well as a second lesion observed in the duodenum. The gastrointerologist was capable of seeing the first portion of the duodenum and photographed the upper duodenal polyp.

The authors of this series of articles presenting unusual radiologic problem cases are from the Department of Radiology, Menorah Medical Center, of which Doctor Rubin is Chairman. They were assisted by Hal Marshal, M.D., Pathologist.

Radiologic Examination: The stomach examination revealed a polypoid lesion in the cardia of the stomach (Fig. 1). In the duodenum, two lesions demonstrated were a small polypoid tu-

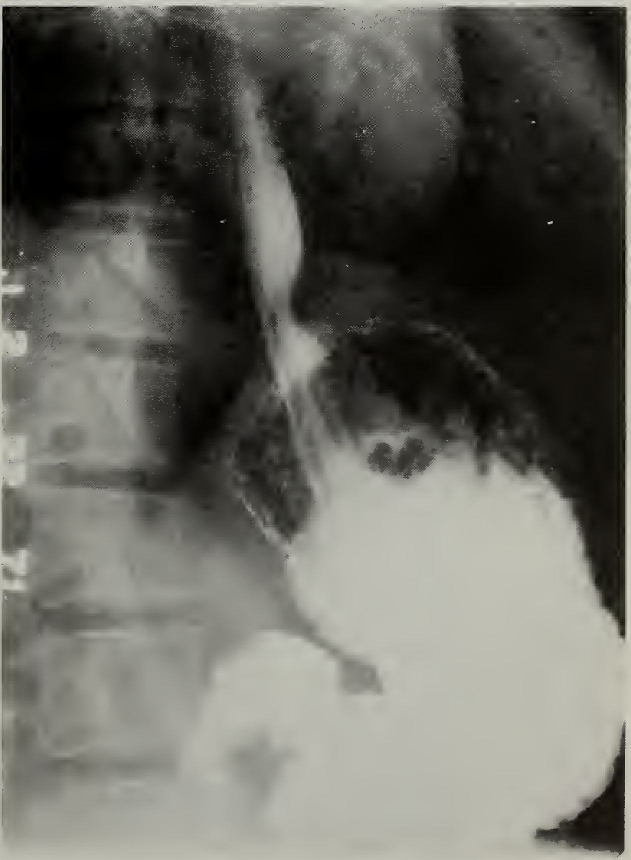

Fig. 1 A dumbbell-shaped defect is seen in the cardia of the stomach, subsequently confirmed by gastroscopy to represent an adenoma.

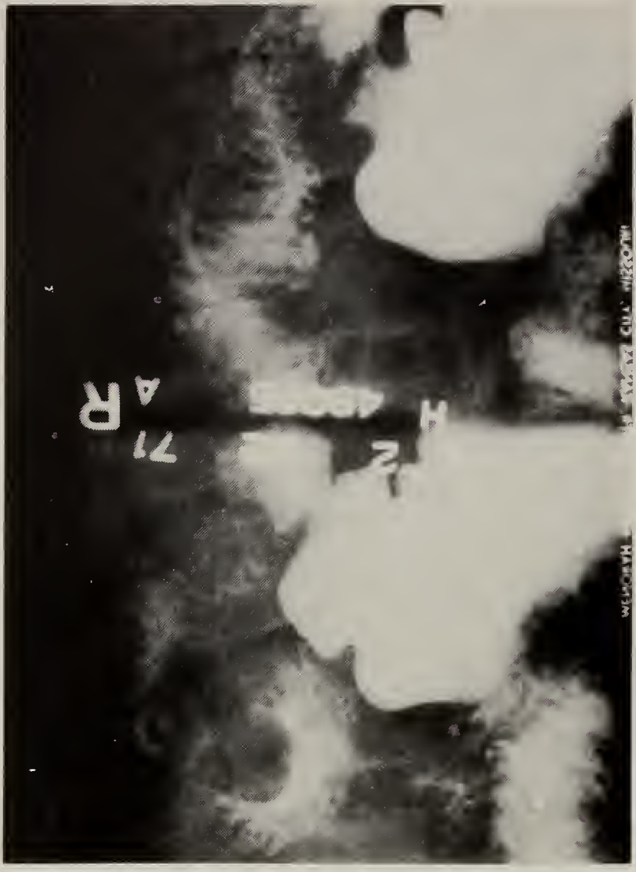

Fig. 2 A double defect is seen in the radiograph of the duodenal sweep. One defect is noted along the lesser curvature to project into the lumen. The larger polypoid tumor was seen to be attached just distal to small lesion and to be smoothly outlined. Under fluoroscopic observation, an intermittent intussusception was evident.

mor arising from the medial wall of the duodenum and a larger mass on the greater curvature side (Fig. 2). Under fluoroscopic visualization, the tumor mass intussuscepted intermittently.

Small intestinal studies demonstrated several small polypoid lesions within the jejunum. The colon also contained several polyps.

Radiological Diagnosis:

1. Peutz-Jeghers Syndrome

Differential Diagnosis:

2. Gardner's Syndrome
3. Turcot's Syndrome
4. Familial polyposis

Discussion

The differential diagnosis of Peutz-Jeghers Syndrome, Gardner's Syndrome, Turcot's Syndrome and familial polyposis is based on history, predilection of polyps and histopathology. The classification is dependent upon detecting *skeletal and soft tissue tumors*, as follows:

1. *Familial polyposis*[1] is a hereditary disease of Mendelian dominance. The polyps are adenomatous, and the bowel has an increased propensity to develop carcinoma. There are no soft tissue tumors or pigmented oral spots. The polyps occur predominantly in the colon and may first be evident in the adolescent age period. While the colon contains multiple polyps, isolated polyps can occur in the stomach and small intestine.

2. *Gardner's Syndrome*[2] is a hereditary disease consisting of polyps in the intestinal tract. The highest incidence of adenomatous polyps occurs in the colon, although small bowel and stomach polyps are recorded. Soft tissue tumors are evident and may represent fibroma, epidermoid myoma, etc. The skeleton will reveal osteomata. The benign bony densities may be seen in the sinuses and on the skull, but also on the long bones. When it involves the long bones, the osteoma appears to blend with a thickened cortex. Frequently, multiple impacted supernumerary teeth will remain in the maxilla and mandible.

3. *In Trucot's Syndrome,* true adenomatous colon polyps coexist with cerebral tumors (neoplasm).

4. *Peutz-Jeghers Syndrome.*[3] The polypoid lesions are *hamartomas* and are predominately benign. Rare and isolated cases have been reported indicating the remote carcinomatous degeneration of these polyps. The freckle-like pigmentation on the lips and on the hands and feet (interdigital) are the hallmarks of this disease. Infrequently, the patient may be seen in a state of irreducible intussusception and, thus, present initially with a obstructive picture.

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President's Message

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and Staff

Extend Their

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for a Joyful Holiday

and All That Is Good

For the New Year

to the

Members of the MSMA

And Their Families!

"The environment of man, his society and profession have become increasingly complex. Only by exercising empathy, courage, unanimity and definition of purpose in a strong spiritual climate may we effectively respond to the challenges of the day. Without these virtues, we shall fail to negate the impact of criticism eminating from bias and bigotry of the ill-informed and the radical-social reformers who are not restrained by the sanity of an orderly evolution of society and state."

Gerald L. Miller, M.D.

EDITORIAL

'RECYCLING,' A HAZARD TO YOUR HEALTH?

"Recycling" has recently become a popular word in our modern dialogues, occurring more frequently as our interest in our environment and its ecology increases. Basically, recycling is the processing of our waste materials in such a fashion as to be converted into reusable products. It is nothing new, we have been doing it for a long time, especially during our not-so-affluent past years. Waste rags and paper have been reconverted into high-grade paper products. Used bottles have been refilled or the glass melted down to make more bottles. Even our sewage, in some cases, has yielded up an excellent organic fertilizer. All this was done by professionals, experienced in the business of collecting and "recycling" waste materials. And such professionals were supervised and controlled by health officials so that their processes would create no public health problem.

But with the increased interest in ecology, the nonprofessional "recycler" has appeared on the scene. Men and women, and even children, are being urged to collect items that can be reclaimed. Dr. George Kupchick of the American Public Health Association, writing recently in *The Environmental News Digest,* said, "I was shocked last week to see a film on NBC-TV entitled 'Earth Year I' which was described as 'an ecology special which demonstrates what the individual can do to help solve pollution problems.' Well-intentioned but, undoubtedly, misguided youngsters and matrons were shown scrounging through garbage, collecting cans, bottles and newspapers."

The dangers are obvious. One of our most hazardous occupations is solid waste handling, with an injury and illness rate nine times that of all other U. S. jobs. Indiscriminate rummaging in waste receptacles exposes the scavenger to cuts and injuries from sharp metal cans and glass, exploding aerosol cans, punctures from discarded hyperdermic needles—the potential for contamination from infected fecal and respiratory wastes is almost limitless.

This is not to bemean the efforts of the concerned citizen who conscientiously separates his household trash so that cans, bottles and paper can be offered for recycling, but rather to point out that proper refuse collection, processing and disposal are matters of public health, not simply materials handling. For solid wastes bear a definite relationship to disease. Death and illness rates are invariably high where wastes are not disposed of in a sanitary manner.

The Health Division advises you to confine your recycling efforts to your own home, regardless of the exhortations of well-intentioned but misguided ecological groups. Scavenging from waste receptacles is condemned, quite properly, in every civilized country.

WILLIAM C. BANTON, II, M.D., M.P.H.
Health Commissioner, City of St. Louis

IMPROVED ACCIDENT & HEALTH PROGRAMS

The Disability Income Policy sponsored by the Missouri State Medical Association since 1943 has now been made GUARANTEED RENEWABLE and income benefits are available up to $300.00 weekly to members under age 56 subject to acceptance by the Company.

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County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

Buchanan County Medical Society

For the 16th consecutive year, the Buchanan County Medical Society and the St. Joseph Bar Association met jointly on November 3. The event was a dinner meeting and program in the Empire Room of the Robidoux Hotel.

Ninety-eight St. Joseph and area physicians and attorneys attended the meeting. The two organization presidents, Dr. Sharon E. Waggoner and Mr. Dan Hale, presided jointly.

Mayor Charles B. Wheeler, Jr. of Kansas City was the speaker for the occasion. He was accompanied to the meeting by Mrs. Wheeler.

In presenting the speaker, Dr. Richard O. Craig, Medical Society Program Chairman, noted that Mayor Wheeler was a particularly appropriate person to talk to the physicians and attorneys since he is a member of both professions. In his talk on "Medicine, Law, Politics, Teaching and Journalism," Doctor Wheeler stated that he believed the power of journalism is by far the greatest of the five professions and urged the physicians and attorneys to strive for constant improvement and progress along lines set forth by news media.

Randal W. Weed, M.D., *Secretary*

Clay County Medical Society

Dr. William H. Goodson, Jr., former Liberty resident, was guest speaker at the Clay County Medical Society meeting on November 2 at Liberty Hills Country Club. He related "The History of Missouri Medicine" from the arrival of the first physician west of the Mississippi, at St. Louis, through the present. Doctor Goodson's family were long-time residents of Liberty.

Doctor Goodson, Jr. attended William Jewell College, graduated from the University of Missouri, and attended and graduated from Harvard Medical School. Internship was completed at the Hartford, Connecticut Hospital. After internship, he practiced briefly in Liberty and was secretary of the Clay County Medical Society. He left his practice in Liberty to accept a fellowship in medicine at the Mayo Clinic where he studied internal medicine for a period of four years and completed a Master of Science degree at the University of Minnesota. He returned to Missouri and has practiced in Kansas City, specializing in internal medicine for more than 25 years. He is recognized throughout the Midwest as an outstanding cinematographer and has produced numerous short movies and travelogues.

His father, William H. Goodson, Sr., M.D., practiced medicine for more than 50 years in Liberty.

Dr. William H. Goodson, Jr. *(left)*, former Liberty resident and physician was introduced by Dr. Donald E. Kuenzi, President of Clay County Medical Society, at a joint meeting of the Medical Society and the Woman's Auxiliary. Doctor Goodson's topic of "History of Missouri Medicine" was based on first-hand knowledge and information from his father that covered more than 75 years of Missouri's medical history.

Grand River Medical Society

Thirty-four members and guests attended the November 11th meeting of the Grand River Medical Society and Auxiliary at the Strand Hotel in Chillicothe.

Warren F. Willhelm, M.D. of Kansas City presented the scientific program. His discussion of emphysema and related diseases proved to be engrossing as evidenced by the length and enthusiastic questions which followed his presentation.

Mrs. Annabelle Valach of St. Louis, President of the Woman's Auxiliary to the MSMA, was an honored guest and presented the Auxiliary program.

It was decided to have the Christmas party at the Strand Hotel. Also, members of the Society voted to continue their present local Society dues.

There being no additional business, the meeting was adjourned.

Frank R. Daley, M.D., *Secretary*

VECTORCARDIOGRAPHY

A Workshop

APRIL 5-7, 1972

This is an advanced course in vectorcardiography for physicians who already have a basic understanding of electrocardiography and vectorcardiography and wish a close exposure to the values and limitations of vectorcardiography.

An intensive three day program will cover the field of vectorcardiography and related areas. Major emphasis will be placed on theoretical and practical applications of the technique as related to the patient's diagnostic problems. Half of the program will be dedicated to individual analysis of routine vectorcardiograms by the participants under the orientation of the guest and local faculty.

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Program Director

Alberto Benchimol, M.D., Director
Institute for Cardiovascular Diseases
Good Samaritan Hospital

Guest Speaker

Ronald H. Selvester, M.D., Professor of Medicine, University of Southern California School of Medicine, Los Angeles, California; Chief of Cardiology and Director of Biomathematics and ECG Research Group, Rancho Los Amigos Hospital, Downey, California

For Information Concerning the Program, Write to

Miss Mary Anne McInerny, Director
Dept. of Continuing Education Programs
American College of Cardiology
9650 Rockville Pike
Bethesda, Maryland 20014

SECOND DISTRICT

COUNCILOR
LYSLE M. BACH, M.D., HANNIBAL

Chariton-Macon-Monroe-Randolph County Medical Society

The CMMR County Medical Society held its regular meeting on November 11 in the library of the Woodland Hospital in Moberly. Vice-President F. L. Harms presided.

Officers for 1972 were elected. They are Drs. F. L. Harms, President; Robert H. Young, Vice-President; and W. D. Chute, Secretary-Treasurer.

Jerry Foote, M.D. and Larry Millikan, M.D., both from the Department of Dermatology, University of Missouri Medical Center, provided the program which was arranged by Dr. F. A. Barnett.

Doctor Foote discussed the symptomatology, pathology and differential diagnosis of a number of severe and serious disorders of the skin, including atopic eczema, psoriasis, contact dermatitis complicated by staphylococcal infection and exfoliative dermatitis. He showed a number of color slides to illustrate his points.

Doctor Millikan discussed the treatment for all the skin disorders mentioned by Doctor Foote. Following his discussion, Doctor Foote showed the Hollister-Stier Patch Test Kit which they use.

Dr. Leopold Lachance, Centralia, was a guest at the meeting.

Members present were Drs. F. L. Harms, D. D. Stuart, James Campbell, D. E. Eggleston, F. A. Barnett, T. S. Fleming, W. D. Chute, C. C. Cohrs, L. E. Huber, P. V. Dreyer, R. V. Tompson and Robert H. Young.

W. D. Chute, M.D., *Secretary*

THIRD DISTRICT

COUNCILOR
MAX S. FRANKLIN, M.D., ST. LOUIS

St. Louis Medical Society

Dr. Donald R. Judd was elected President-Elect of the St. Louis Medical Society at the election-meeting of the Society on November 26 in St. Louis.

Doctor Judd is Associate Clinical Professor of surgery at the St. Louis University School of Medicine and president of the St. Louis Hospital medical and dental staff.

Other officers elected are Dr. Robert H. Felix, dean of the St. Louis University School of Medicine, Vice-President, and Dr. Paul L. Friedman, Washington University anesthesiologist, Secretary.

Newly-elected Council members are Drs. Eugene Mitchell, James M. Stokes, Harry Reich and James W. Haynes.

Doctor Judd will assume office in 1973. Dr. Eugene Pennington, 1971 President-Elect, succeeds Dr. Lawrence W. O'Neal as President this month.

FIFTH DISTRICT

COUNCILOR
JAMES C. COPE, M.D., COLUMBIA

BOONE COUNTY MEDICAL SOCIETY

The monthly meeting of the Boone County Medical Society was held at the Columbia Inn in Columbia on November 4. The Secretary read the minutes of the last meeting. They were approved as read.

After a discussion concerning joint billing of MPAC dues and membership dues, it was moved that the Society allow joint billing. The motion was seconded and passed.

It was announced that Dr. Norman B. Asel will appoint an Ad Hoc Committee to look into Blue Cross-Blue Shield for the Society members, as discussed at the last meeting. They will report at the next Society meeting.

It was decided to send flowers to Dr. John Walter who is ill and to present a gift of $10 to the Heart Association in memory of Dr. Karl Dietrich.

There being no further business, the meeting was adjourned and all present participated in the Fifth District Council Meeting.

WILLIAM C. ALLEN, M.D., *Secretary*

COLE COUNTY MEDICAL SOCIETY

Charles W. Meinershagen, M.D., Jefferson City, was elected to serve as President of the Cole County Medical Society in 1972 at the Society's November meeting in Jefferson City.

Other newly-elected officers are Drs. Jack S. Sanders, President-Elect; Kenneth K. C. Siu, Secretary-Treasurer; and Thomas J. Ryan, Board of Censors.

Elected as Delegates to the Missouri State Medical Association are Drs. G. Donald Shull, Robert H. Tanner and Byron E. Watts.

KENNETH K. C. SIU, M.D., *Secretary*

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SEVENTH DISTRICT

COUNCILOR
R. ALLEN CHANDLER, M.D.,
KANSAS CITY

Jackson County Medical Society

Dr. Christopher Y. Thomas, Jr. has been elected President-Elect of the Jackson County Medical Society. He will become President of the Society in 1973, succeeding Dr. Carl M. Peterson who took office on Jan. 1, 1972.

Dr. William A. Leo has been elected to a three-year term on the Judicial Board, which is responsible for establishing and enforcing ethical guidelines for the Society.

Also elected were Drs. Wallace B. Smith, Fred D. Fowler, Warren F. Wilhelm and R. Don Blim, Executive Council; Abe E. Braverman, Robert C. Fairchild and Frank R. Williams, Medical Business Bureau Advisory Committee; and Francis J. Ammatelli, Calvin E. Engelmann, R. Stacy Long, Mark D. Ost, Wayne K. Tice and Edward J. Twin, Delegates to the MSMA.

EIGHTH DISTRICT

COUNCILOR
HOWARD J. McALHANY, M.D.,
SPRINGFIELD

Greene County Medical Society

Dr. M. D. Bonebrake was unanimously elected President-Elect of the Greene County Medical Society during the annual business meeting of the Society on October 25 at Holiday Inn in Springfield.

Dr. Oral B. Crawford, President, presided over the meeting. A slate of officers proposed by the Nominating Committee at the September meeting of the Society was voted on and approved by the membership.

In addition to Doctor Bonebrake, officers who will serve the Greene County Medical Society and the Greene County Medical Society Foundation during 1972 are Drs. Robert D. Duncan, President; Paul S. Quinn, Secretary; and James F. Terry, Treasurer.

Drs. E. Ruel Olson and William M. Walker were elected to three-year terms on the Executive Council.

The following members were elected as Delegates to the MSMA for one-year terms: Drs. Stanley Peterson, Walter German, William Walker, M. D. Bonebrake, James T. Brown and Robert Maher. Elected as Alternate Delegates for one-year terms are Drs. David Brown, William Mill, Don Menchetti, Rex Lewis, Guido Podrecca and James S. Key.

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ACTIONS: *Microbiology:* Phenoxymethyl penicillin exerts high in vitro activity against staphylococci (except penicillinase-producing strains), streptococci (groups A, C, G, H, L, and M) and pneumococci. Other organisms sensitive to phenoxymethyl penicillin are *Corynebacterium diphtheriae, Bacillus anthracis, Clostridia, Actinomyces bovis, Streptobacillus moniliformis, Listeria monocytogenes,* Leptospira, and *Neisseria gonorrhoeae. Treponema pallidum* is extremely sensitive. *Pharmacology:* Phenoxymethyl penicillin is more resistant to inactivation by gastric acid than penicillin G. It may be given with meals and average blood levels are two to five times higher than the levels following the same dose of oral penicillin G. Once absorbed, phenoxymethyl penicillin is about 80% bound to serum protein. Tissue levels are highest in the kidneys, with lesser amounts in the liver, skin, and intestines and small amounts in all other body tissues and cerebrospinal fluid. Only about 25% of the dose given is absorbed. In neonates, young infants, and individuals with impaired kidney function, excretion is considerably delayed.

INDICATIONS: Phenoxymethyl penicillin is indicated in the treatment of mild to moderately severe infections caused by penicillin G-sensitive microorganisms that are sensitive to the low serum levels common to this particular dosage form. Therapy should be guided by bacteriological studies (including sensitivity tests) and by clinical response. Culture and sensitivity testing are especially important in suspected staphylococcal infections because increased resistance has been reported. Phenoxymethyl penicillin is not active against penicillinase-producing bacteria.

Note: Severe pneumonia, empyema, bacteremia, pericarditis, meningitis, and arthritis should not be treated with phenoxymethyl penicillin during the acute stage.

Indicated surgical procedures should be performed.

Medical conditions in which oral penicillin therapy is indicated as prophylaxis: For the prevention of recurrence following rheumatic fever and/or chorea. To prevent bacterial endocarditis in patients with congenital and/or rheumatic heart lesions who are to undergo dental procedures or minor upper respiratory tract surgery or instrumentation.

Note: Oral penicillin should not be used as adjunctive prophylaxis for genitourinary instrumentation or surgery, lower intestinal tract surgery, sigmoidoscopy and childbirth.

CONTRAINDICATION: A previous hypersensitivity reaction to any penicillin.

WARNINGS: Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. While more frequent following parenteral therapy, anaphylaxis has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

Some individuals with a history of penicillin hypersensitivity reactions have experienced severe hypersensitivity reactions from a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines and corticosteroids.

PRECAUTIONS: Penicillin should be used with caution in individuals with histories of significant allergies and/or asthma.

The oral route of administration should not be relied on in patients with severe illness, or with nausea, vomiting, gastric dilatation, cardiospasm, or intestinal hypermotility.

Occasional patients will not absorb therapeutic amounts of orally administered penicillin.

In streptococcal infections, therapy must be sufficient to eliminate the organism (10 days minimum); otherwise the sequelae of streptococcal disease may occur. Cultures should be taken following completion of treatment to determine whether streptococci have been eradicated.

Prolonged use of antibiotics may promote the overgrowth of nonsusceptible organisms, including fungi. Should superinfection occur, appropriate measures should be taken.

ADVERSE REACTIONS: While the incidence of reactions to oral penicillins is much less than with parenteral therapy, it should be remembered that all degrees of hypersensitivity, including fatal anaphylaxis, have been reported with oral penicillin.

The most common reactions to oral penicillin are nausea, vomiting, epigastric distress, diarrhea, and black hairy tongue. The hypersensitivity reactions reported are skin eruptions (maculopapular to exfoliative dermatitis), urticaria and other serum sickness reactions, laryngeal edema, and anaphylaxis. Fever and eosinophilia may frequently be the only reaction observed. Hemolytic anemia, leucopenia, thrombocytopenia, neuropathy, and nephropathy are infrequent reactions and are usually associated with high doses of parenteral penicillin.

HOW SUPPLIED: Pfizerpen VK (potassium phenoxymethyl penicillin) for Oral Solution. Each 5 ml. of reconstituted solution contains potassium phenoxymethyl penicillin equivalent to 125 mg. (200,000 units) or 250 mg. (400,000 units) of phenoxymethyl penicillin.

125 mg. bottles of 100 ml. and 150 ml.
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250 mg. bottles of 100.
500 mg. bottles of 100.

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Assurance of a single-dose, physician-controlled treatment schedule

No allergic reactions occurred in patients with an alleged history of penicillin sensitivity when treated with Trobicin, although penicillin antibody studies were not performed

Active against most strains of Neisseria gonorrhoeae in vitro (M.I.C. 7.5-20 mcg/ml)

A single two-gram injection produces peak serum concentrations averaging about 100 mcg/ml in one hour (average serum concentrations of 15 mcg/ml present 8 hours after dosing)

Note: Antibiotics used in high doses for short periods of time to treat gonorrhea may mask or delay the symptoms of incubating syphilis. Since the treatment of syphilis demands prolonged therapy with any effective antibiotic, and since Trobicin is not indicated in the treatment of syphilis, patients being treated for gonorrhea should be closely observed clinically. Monthly serological follow-up for at least 3 months should be instituted if the diagnosis of syphilis is suspected. Trobicin is contraindicated in patients previously found hypersensitive to it.

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*Data compiled from reports of 14 investigators. **Diagnosis was confirmed by cultural identification of *N. gonorrhoeae* on Thayer-Martin media in all patients. Criteria for cure: negative culture after at least 2 days post-treatment in males and at least 7 days post-treatment in females. Any positive culture obtained post-treatment was considered evidence of treatment failure even though the follow-up period might have been less than the periods cited above under "criteria for cure" except when the investigator determined that reinfection through additional sexual contacts was likely. Such cases were judged to be reinfections rather than relapses or failures. These cases were regarded as non-evaluatable and were not included. JA72 1848-6

globin; hematocrit and creatinine clearance; elevation of alkaline phosphatase, BUN and SGPT. In single and multiple-dose studies in normal volunteers, a reduction in urine output was noted. Extensive renal function studies demonstrated no consistent changes indicative of renal toxicity.

Dosage and administration: Keep at 25°C and use within 24 hours after reconstitution with diluent.
Male—single 2 gram dose (5 ml) intramuscularly. Patients with gonorrheal proctitis and patients being re-treated after failure of previous antibiotic therapy should receive 4 grams (10 ml). In geographic areas where antibiotic resistance is known to be prevalent, initial treatment with 4 grams (10 ml) intramuscularly is preferred.
Female—single 4 gram dose (10 ml) intramuscularly.

How supplied: *Vials, 2 and 4 grams—with ampoule of Bacteriostatic Water for Injection with Benzyl Alcohol 0.9% w/v.* Reconstitution yields 5 and 10 ml respectively with a concentration of spectinomycin dihydrochloride pentahydrate equivalent to 400 mg spectinomycin per ml. For intramuscular use only.
Susceptibility Powder—for testing *in vitro* susceptibility of *N. gonorrhoeae.*

Human pharmacology: Rapidly absorbed after intramuscular injection. A two-gram injection produces peak serum concentrations averaging about 100 mcg/ml at one hour with 15 mcg/ml at 8 hours. A four-gram injection produces peak serum concentrations averaging 160 mcg/ml at two hours with 31 mcg/ml at 8 hours.
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From the Medical Schools

ST. LOUIS UNIVERSITY

Dr. Eugene D. Robin, professor of medicine and physiology at Stanford University School of Medicine *(center)*, accepts plaque as visiting professor in internal medicine from Dr. Daniel L. Sexton, associate clinical professor emeritus of internal medicine, who made the presentation. Looking on is Dr. Thomas F. Frawley, chairman of the department.

Dr. Eugene D. Robin, professor of medicine and physiology at Stanford University School of Medicine, was visiting professor in internal medicine at the School of Medicine on November 16-17. His main lecture, titled "Acid-Base Dynamics: The Treatment of Metabolically-Induced Acidosis," was delivered on November 19 in Glennon Hall.

During his visiting professorship, Doctor Robin made ward rounds three mornings and participated in many teaching conferences at the St. Louis University Hospitals. He was honored by the department at a reception and dinner held at the St. Louis University Alumni Club Mansion House Center.

Four members of the School of Medicine faculty will be principal investigators in cancer research studies supported by grants totaling $75,400 from the Damon Runyon Memorial Fund, according to an announcement by *Dr. George E. Thoma, Jr.,* research administrator and assistant vice-president for the St. Louis University Medical Center.

Individual investigators, their research titles and the sum received for their projects were *Dr. Henry Pinkerton,* professor emeritus of pathology, "Non-specific Enhancement of Immunity to Neoplasia," $15,400; *Dr. Herschel Raskas,* assistant professor of molecular virology and assistant professor of pathology, "Early Events in Cell Transformation by Human Adenoviruses," $25,000.

Dr. George E. Eliceiri, assistant professor of pathology and *Dr. Eckard Wimmer,* assistant professor of microbiology, were named recipients for a two-year period with sums awarded for the first year. Doctor Eliceiri's project is titled "Effects of Polyoma Virus Infection on Hamster Mouse Hybrid Cells." He was the recipient of $18,500. Doctor Wimmer is investigating "Terminal Base Sequence Structure and Function of C-Type RNA Virus and Polio Virus Ribonucleic Acids" under a $16,500 sum.

Dr. Eli Nadel, professor of pathology and community medicine and associate dean of the School of Medicine, has been awarded a three-year grant of $91,926 by the National Institutes of Health for a research project titled "Paraphysiology of Leukemia in Guinea Pigs." Doctor Nadel presented a paper titled "Preliminary Evaluation of the Min-Cone TM: Comparison with Punch Biopsy," before the American Society of Cytology in Washington, D. C., in November.

Six distinguished authorities on stroke diagnosis and treatment participated in a symposium held on November 5.

The symposium was sponsored by Bi-State Regional Medical Program Diagnostic Demonstration Stroke Unit, headquartered at the St. Louis University Hospitals, and the St. Louis Chapter of the American Heart Association.

Speakers included *Drs. William B. Kannel,* Medical Director of Heart Disease Epidemiology Study, National Institutes of Health, Framingham, Mass.; *Jack P. Whisnant,* professor and chairman, Department of Neurology, Mayo Clinic, Mayo Graduate School, Rochester, Minn.; *Robert L. Chesanow,* chief of neurology, St. Louis City Hospital, assistant professor of neurology, Washington University School of Medicine; *Henry G. Schwartz,* professor of neurosurgery, Washington University School of Medicine; and *William Kermond,* instructor in orthopedic surgery, Harvard Medical School, assistant coordinator of rehabilitation services, Massachusetts General Hospital, Boston.

Dr. Kenneth R. Smith, Jr., professor and chairman of the section of neurosurgery, St. Louis University School of Medicine, moderated the symposium.

UNIVERSITY OF MISSOURI-COLUMBIA

Dr. Charles E. Mengel, professor and chairman of the Department of Medicine at the University Medical Center, was one of the main speakers at a conference on "Vitamin E and Its Role in Cellular Metabolism" sponsored by the New York Academy of Sciences on December 5-6 in New York. In his presentation, Doctor Mengel described the research studies he and his associates have done regarding vitamin E and its relationship to biological rancidity. His findings regarding vitamin E's relationship to rancidity of the red blood cell may suggest ways to prevent this untoward condition.

Two members of the rheumatology division at the University Medical Center, *Dr. Gordon Sharp* and *Dr. Alan Morris,* were invited to present scientific papers concerning their research at the meeting of the American Rheumatism Association in San Diego on December 10.

Both physicians are involved in patient care and research studies concerned with arthritis and related diseases, trying to develop new treatments and preventive measures. Doctor Sharp heads a medical team now working toward the establishment of a Mid-Missouri arthritis center within the Medical Center complex.

Before the San Diego meeting, Doctor Sharp and *Dr. William S. Irvin,* another member of the immunology-rheumatology staff, plan to spend several days at Stanford University in California reevaluating 25 patients whom they had studied for many years while they were both associated with that institution, before joining the Missouri faculty two and one-half years ago.

Dr. James O. Davis, professor and chairman of the Department of Physiology at the School of Medicine received the Sigma Xi Research Award for 1971 at a banquet in his honor on November 4.

Noted for his research on heart failure and hypertension, Doctor Davis delivered a lecture after the banquet on the topic, "The Renin-Angiotensin-Aldosterone System and Sodium Excretion."

Dr. George W. Preckshot, president of the Missouri chapter of the honorary science fraternity, presented a $500 stipend and a framed certificate to Doctor Davis. His name also will be inscribed on a plaque in the Sciences Section of the Main Library.

University of Missouri-Columbia medical students will have an opportunity to take a first-hand look at the specialty of family practice as participants in the "Big Brother Program" sponsored by the Missouri Academy of Family Physicians. *Dr. Ben Koon,* MU medical class of 1954 and "Big Brother" committee chairman, recently interviewed approximately 50 interested medical students and acquainted them with the details of the program.

The project matches up medical students and academy members of similar interests in a type of "introduction to preceptorship." At the convenience of both parties, the student will periodically spend a weekend at his big brother's home during which time he will have the opportunity to see an inside look at a family physician's practice and lifestyle. Both the frequency and structure of these visits will be left to the individual participants.

WASHINGTON UNIVERSITY

Dr. Henry E. Oppenheimer served as director of the Fourth Annual Symposium on Diabetes which was held at St. John's Mercy Hospital in St. Louis on October 13.

Title for the symposium was "University Group Diabetes Program Controversy." Other participants included Dr. Marvin E. Levin, Assistant Clinical Professor, School of Medicine, and Dr. Jeremiah Stamler, Executive Director of the Chicago Health Institute.

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"Without your help

. . . I simply would not have made it through medical school!"

(The following letter was received on Oct. 1, 1971 from a physician who, as a student, received financial assistance from the Missouri State Medical Association members who have contributed to the Missouri State Medical Foundation. It is printed with his permission.)

Dear Doctor:

"Thank you very much for your thoughtful letter concerning receipt of my final payment on my medical student loan.

"I can well remember the feeling of destitution associated with being a reasonably good student but lacking funds with which to enroll for the next semester in medical school. Having always been, perhaps, more than adequately endowed with pride, it was a lesson in discipline and humility to go seeking financial assistance. However, the effort brought me in contact with some very nice people who really do a lot to keep one's faith in human nature alive.

"I sincerely appreciate the efforts which you and others put into the Missouri State Medical Foundation and all other student loan funds. You should feel a quiet heroism for the assistance you lend to needy students . . . without your help, I simply would not have made it through medical school."

The Missouri State Medical Foundation—MSMF—was created by the Missouri State Medical Association for the express purpose of giving financial assistance to deserving young Missourians who will be tomorrow's doctors.

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New Members

Armela R. Agasino, M.D., 2244 Union Rd., St. Louis, has become a member of St. Louis Medical Society. Dr. Agasino is a native of San Narciso, Quezon, Philippines, received her preliminary education at the University of Santo Tomas and her M.D. degree at the University of Santo Tomas in 1960. She is in general practice.

Yavuz Aykent, M.D., 911 S. Brentwood Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Aykent is a native of Samsun, Turkey, received his preliminary education at Samsun, Turkey, and his M.D. degree at Istanbul University in 1951. He specializes in internal medicine (cardiology).

Anne E. Bannon, M.D., 1515 Lafayette Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Bannon is a native of Joliet, Ill., received her preliminary education at the College of St. Francis and her M.D. degree at St. Louis University in 1961. She specializes in pediatrics.

John L. Bardsley, M.D., 615 S. New Ballas Rd., St. Louis, has become a member of St. Louis Medical Society. Dr. Bardsley is a native of Collinsville, Ill., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois in 1964. He specializes in radiology.

Oscar H. Bolch, Jr., M.D., 4911 Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Bolch is a native of Wake Forest, N. C., received his preliminary education at the University of North Carolina and his M.D. degree at the University of North Carolina in 1962. He specializes in obstetrics and gynecology.

Phadung Chadaratana, M.D., 2601 Whittier, St. Louis, has become a member of St. Louis Medical Society. Dr. Chadaratana is a native of Songkla, Thailand, received his preliminary education at Amnuay Silpa School and his M.D. degree at Siriraj Medical School in 1964. He specializes in otolaryngology.

Juan C. Corvalan, M.D., 4989 Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Corvalan is a native of Maipu-Mendoza, Argentina, received his preliminary education at Liceo Militar Espejo and his M.D. degree at Universidad Nacional de Cuyo in 1965. He specializes in psychiatry.

Leonard W. Fabian, M.D., 660 S. Euclid Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Fabian is a native of Little Rock, Ark., received his preliminary education at the University of Arkansas and his M.D. degree at the University of Arkansas in 1951. He specializes in anesthesiology.

Fredric C. Hall, M.D., 4500 W. Pine Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Hall is a native of Nevada, Ia., received his preliminary education at Iowa State University and his M.D. degree at Iowa University in 1965. He specializes in psychiatry.

Max M. Inman, M.D., 3915 Watson Rd., St. Louis, has become a member of St. Louis Medical Society. Dr. Inman is a native of Salem, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1960. His specializes in internal medicine (gastroenterology).

Robert L. Kaufman, M.D., 500 S. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Kaufman is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at Washington University in 1963. He specializes in internal medicine.

Chung Ki Kim, M.D., 5804 Helen Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Kim is a native of Chinju, Korea, received his preliminary education at Yon Sie University and his M.D. degree at Yon Sei Uni-

versity in 1959. He specializes in obstetrics and gynecology.

Haruo Kusama, M.D., 1420 Grattan, St. Louis, has become a member of St. Louis Medical Society. Dr. Kusama is a native of Iida, Japan, received his preliminary education at Washington University and his M.D. degree at Washington University in 1965. He specializes in child psychiatry.

Ernesto S. Lam, M.D., 7200 Manchester, St. Louis, has become a member of St. Louis Medical Society. Dr. Lam is a native of Cavite City, Philippines, received his preliminary education at Letran College and his M.D. degree at University of the East R. M. Mem. Medical Center in 1965. He specializes in general surgery.

Wilfred Leach, M.D., 1310 S. Grand Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Leach is a native of Rochdale, England, received his preliminary education at Downing College and his M.D. degree at Cambridge University in 1955. He specializes in otolaryngology.

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F. Thomas Ott, M.D., 100 Northland Medical Bldg., St. Louis, has become a member of St. Louis Medical Society. Dr. Ott is a native of Culver, Indiana, received his preliminary education at Southern Methodist University and his M.D. degree at Washington University in 1965. He specializes in ophthalmology.

Moududur Rahman, M.D., 1035 Bellevue Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Rahman is a native of Rangpur, East Pakistan, received his preliminary education at Dacca College and his M.D. at Dacca Medical College in 1953. He specializes in ophthalmology.

David M. Reisler, M.D., 100 N. Euclid Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Reisler is a native of Galesburg, Ill., received his preliminary education at Harvard University and his M.D. degree at Washington University in 1961. He specializes in neurology.

Kurella T. Sarma, M.D., 525 Couch Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Sarma is a native of Guntur, India, received his preliminary education at M. R. College and his M.D. degree at Andhra Medical College in 1961. He specializes in general surgery.

Laurence A. Sherman, M.D., 216 S. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Sherman is a native of Cambridge, Mass., received his preliminary education at the University of Chicago and his M.D. degree at Albany Medical College in 1964. He specializes in internal medicine.

Richard H. Sinclair, M.D., 4620 Nichols Parkway, Kansas City, has become a member of Jackson County Medical Society. Dr. Sinclair is a native of Kansas City, received his preliminary education at Rockhurst College and his M.D. degree at St. Louis University in 1963. He specializes in obstetrics and gynecology.

Suchint Wathanacharoen, M.D., 4320 Wornall Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Wathanacharoen is a native of Chachoengsao, Thailand, received his preliminary education at Chulalongkorn University and his M.D. degree at Siriraj University in 1962. He specializes in thoracic and cardiovascular surgery.

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LEO H. POLLOCK, M.D.

Missouri Medicine in Review

FORTY YEARS AGO

In 1909, the first White House Conference on Child Health was called by President Theodore Roosevelt. Ten years later, a second conference was called by President Woodrow Wilson. In July, 1929, a decade later, President Herbert Hoover called the third conference.

The 1931 session of the White House Conference on Child Health and Protection was called on February 19-21 by President Hoover. Aside from the technical studies, the most important accomplishment was the bringing together of scientists, practicing physicians, teachers, nurses and lay health workers in a common cause. Never before had such a group of anatomists as Scannon, Todd and Streeter; chemists as Bloor and McCallum, physiologists as Carlson and Wiggers; geneticists as Davenport; psychologists as Gessell; psychiatrists as Meyer and bacteriologists as Rosenau met with and found their problems closely related to those of the many practicing physicians, nurses and lay medical workers who participated.

Just 60 years have elapsed since the first training schools for nurses were established in this country, marking the beginning of modern nursing. There are approximately 1,900 accredited schools of nursing at the present time which graduate approximately 20,000 nurses each year.

TWENTY-FIVE YEARS AGO

Only 12 of the 30 deceased Presidents of the United States outlived their expectation of life at inauguration, according to a study made by the Metropolitan Life Insurance Company. Since 1900, only William Howard Taft survived his expectation of life at inauguration. Herbert Hoover, only living ex-president, has practically reached the mark, while President Harry Truman has many years to live before attaining the expectation of life reckoned from his inauguration. With few exceptions, the presidents are well in or past midlife by the time they enter the presidency. The youngest was Theodore Roosevelt who was only 42 years of age at inauguration. The oldest, William Henry Harrison, died one month after taking office at the age of 68. Except for President Truman, none of the Presidents since Buchanan had passed his 60th birthday before inauguration.

One hundred and twenty-two additional civilian consultants to the Secretary of War were appointed recently through the Surgeon General. Among them were William E. Allen, Jr., M.D. of St. Louis, radiologist, and S. Richard Silverman, M.D. of St. Louis, otolaryngologist.

In celebration of its centennial in 1947, the American Medical Association presented the first in a series of 26 NBC-dramatized broadcasts on the progress of medicine in the United States during the 100 years of the AMA's existence.

TEN YEARS AGO

The American Board of Dermatology and Syphilology recently named Clinton W. Lane, M.D. of St. Louis as president. He will preside at the meeting of the board in Ann Arbor next fall.—Dr. Charles E. Lockhart, Springfield, was elected president of the American Cancer Society for a two-year term on October 15. Recipients of honorary memberships were Dr. Everett D. Sugarbaker, Jefferson City and Dr. Edwin C. Ernst, St. Louis.

"Dr. Martin Appreciation Day" was held in Odessa on November 27, the 79th birthday of Dr. W. E. Martin. It also was the day he culminated 38 years of practice in that community.

Members of the Grand River Medical Society met at the Strand Hotel in Chillicothe on November 9. Approximately 40 people attended. Officers elected for 1962 were Drs. Ralph W. Bohnsack, President; George Gary, First Vice-President; James H. Sweiger, Second Vice-President; and Frank R. Daley, Secretary-Treasurer.

A Night to Remember!

The Honor of the Presence of

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In Honor of Past-Presidents

Of The Missouri State Medical Association

on

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A Meeting to Remember!

The MSMA

114th ANNUAL SESSION

April 6-9, 1972

Muehlebach Hotel Kansas City

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Robert W. Kelley, M.D., St. Louis, *Alternate*

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Annual Session Plans Progress

"The biggest and best in Association history" seems to be the only way to describe the 114th Annual Session of the Missouri State Medical Association to be held April 6-9 at the Muehlebach Hotel, Kansas City.

An outstanding scientific program has been assembled for the meeting as well as a banquet program for Saturday night highlighting the famed Singing Doctors from Greene County and a dance featuring the 17-member Warren Durrett Orchestra.

The program on Friday, April 7 features a general session at 9 a.m., five concurrent scientific sessions at 11 a.m., and five concurrent sessions at 2:00 p.m. The general session on Friday morning is on the subject of Peer Review. Missouri University Alumni will have a Friday noon luncheon as will members of the Missouri Obstetrical and Gynecological Society.

There will be a general session at 9 a.m. on Saturday on the topic "Comparative Costs of Medical Care." Four concurrent scientific sessions are scheduled at 11 a.m. with two more concurrent sessions at 2:30 p.m. A general noon luncheon is scheduled. There will also be special luncheons for members of the Fifty-Year Club, for members of the Missouri Ophthalmological Society, Inc., and for members of the Missouri Association of Neurological Surgeons.

MSMA
News

Blue Cross And Shield Regulation Is Proposed

A new move is underway in the Missouri General Assembly to attempt to bring Blue Cross and Blue Shield in Missouri under the regulatory control of the Missouri Division of Insurance with a premium tax.

Governor Warren E. Hearnes in his message to the Legislature on January 5 called for passage of a law to provide for regulation of Blue Cross and Blue Shield, pointing out that Missouri was the only state without such regulations.

A holdover bill in the House providing for such regulation, House Bill 583, was reassigned to the House Insurance Committee. It appeared likely that a new bill along the same line might be introduced in the House.

In the Senate, a bill similar to HB 583, entitled SB 616, has been introduced. As of January 18 it had not been assigned to Committee.

In other matters of interest to the medical profession: HB 1093 which would allow chiropractors to use physiotherapy was assigned to the House Public Health Committee; HB 1032 which would provide a $4,000 per year subsidy for Missouri students attending the two private medical schools or osteopathic school was assigned to the House Education Committee; HB 1053 which would make changes in the statute of limitations in malpractice cases was assigned to the House Judiciary Committee; HB 1034 which adds mumps and rubella innoculation to school requirements was assigned to the House Public Health Committee and SB 436 which seeks to lower the percentage of alcohol in blood to determine whether or not a driver is intoxicated was assigned to the Senate Judiciary Committee.

Among bills of medical interest introduced since the January edition of MSMA News went to the press are the following:

HB 1325 would require the state to pay a third of the amount by which costs exceed receipts of city, county, district or non-profit publicly supported hospitals. A fiscal note suggests the cost would be $13.2 million per year.

HB 1497, same as SB 436, would lower intoxication definition.

HB 1428 would increase membership on state hospital advisory council from eight to 10 and require that at least one member be concerned with the education or training of health professions personnel. Five of the members, instead of four, would have to be representatives of consumers of health care.

HB 1294 would set up three boards to examine, license and regulate radiological technology in the field of medicine, dentistry and chiropractice under Division of Health. Assigned to House License Committee.

HB 1261 would open the doors of Ellis Fischel-Cancer Hospital in Columbia to patients who can pay all the cost of their care and treatment. Assigned to House Public Health Committee.

SB 505 would license and regulate all persons who sell or fit hearing aids. Assigned to Senate Public Health Committee.

SB 508 would provide for licensing and regulation and set standards for the operation of private and publicly owned ambulances by Division of Health. Assigned to Senate Public Health Committee.

SB 521 is similar to HB 1032 providing for grants to private medical and osteopathic schools. Assigned to Senate Higher Education Committee.

PAS and MAP Workshop Planned

The Missouri State Medical Association will co-sponsor a PAS (Personal Activity Study) and MAP (Medical Audit Program) Workshop on Thursday, February 24 at the Muehlebach Hotel in Kansas City.

Principal sponsor of the Workshop is the Commission on Professional and Hospital Activities, 1968 Green Road, Ann Arbor, Michigan 48105. Details of the Workshop may be secured by writing the above mentioned address. Among topics for the one-day program are medical auditing, comprehensive review, utilization review, and computer processing.

PAS is a shared-computer medical record information system into which information flows through a case abstract completed by the medical record department on every patient discharged from a participating hospital. The patient information is displayed back to the hospital in a series of monthly, semiannual and annual reports which are useful in visualizing the overall patterns of care in each hospital. Individual patients contributing to the patterns can easily be found and studied.

MAP is an extension of PAS. No new input is required. The data is displayed to the hospital in comprehensive quarterly departmental reports. Use of the reports aids each clinical department in conducting a comprehensive medical audit and in retrospective utilization review.

Cost of the Workshop is $40 for a participant from a PAS hospital, $55 for a participant from a non-PAS hospital. It is emphasized that the session is not designed to teach coding, abstracting or details of data processing.

Plan Hospital Conference

"Large and Small Hospital Organization for the 70s" is the title of a one-day conference to be held on Thursday, March 9, 1972 at the Ramada Inn, Jefferson City. The Missouri State Medical Association is a co-sponsor along with the Missouri Association of Osteopathic Physicians and Surgeons, the Missouri Hospital Association, the Missouri Regional Medical Program and the Bi-State Regional Medical Program.

The conference is planned to give a very special opportunity for teams of board chairmen, chiefs of staff and hospital administrators to participate in a one-day program specifically designed to help them meet their increasing responsibilities.

The meeting is patterned after the successful Hospital Medical Staff Conference in Estes Park, Colorado, and includes four speakers who have been participants in the Estes Park Program.

Registration fee is $60 per hospital and this sum covers registration for three representatives of that hospital - board chairman, chief of staff and administrator. There will be a $25 fee for individual registration. The meeting is open to all physicians and others involved in hospital affairs.

The program opens with registration at 8:30 a.m. and concludes with a banquet. Registration fee includes a noon luncheon and the banquet.

Full information may be secured by writing the MSMA office, Box 1028, Jefferson City, Mo. 65101.

The program for the one-day conference is as follows:

9:00-9:45 a.m. -

"Challenges Facing the Hospital Medical Staff - Compulsory Voluntarism" - Robert Cadmus, M.D., Executive Director, Medical Center of Southeastern Wisconsin, Milwaukee.

9:45-10:30 -

"The Physician's Stake in Hospital Board Competence" - Paul Donnelly, M.S., Director of Hospital and Health Care Administration, St. Louis University.

10:30-11:00 - Coffee Break

11:00-11:45 -

"The Changing Legal Responsibilities of Boards of Trustees" - Neil L. Chayet, J.D., Attorney at Law, Boston.

11:45-1:30 - Luncheon

SMALL HOSPITAL REPRESENTATIVES

1:30-2:15 -

"Patient Care Evaluation - Organizing Small Hospitals for Medical Audit" - William R. Fifer, M.D., Professor of Medicine, University of Minnesota.

2:15-3:00 -

"The Changing Accreditation Requirements for Smaller Hospitals" - Charles Jacobs, J.D., Joint Commission on Accreditation of Hospitals, Chicago.

LARGE HOSPITAL REPRESENTATIVES

1:30-2:15 -

"Patient Care Evaluation" - Clement R. Brown, M.D., Director of Medical Education, Chestnut Hill Hospital, Philadelphia.

2:15-3:00 -

"How Do You Get Committees to Work?" - Andre L. Delbecg, Ph.D., Professor of Management, University of Wisconsin, Madison.

ALL PARTICIPANTS

3:30-5:00 - Group Work Sessions

6:30 - Dinner

Program - "Approaches to Effective Medical Staff Management" - George Shapiro, Ph.D., Management Consultant, St. Paul, Minn.

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Preliminary Program

114th Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

Muehlebach Hotel, Kansas City **April 6-9, 1972**

Thursday, April 6

11:00 AM Registration of Delegates.
1:30 PM House of Delegates Meeting, opening session.
3:30 PM Reference Committee Meetings.

Friday, April 7

8:00 AM Registration.
9:00 AM General Session. *Peer Review.*
Moderator: Hector W. Benoit, Jr., M.D., Kansas City.
(Participants to be announced.)
Sponsored by the Health Care Foundation of Missouri.
10:30 AM Intermission to view exhibits.
*11:00 AM *Abdominal Trauma*
Moderator: Andrew McCanse, M.D., Kansas City.
Panel Participants:
  Andrew McCanse, M.D., Kansas City.
  W. Kendall McNabney, M.D., Kansas City.
Sponsored by Missouri State Surgical Society.
*11:00 AM *Symposium on Cardiovascular Disease.*
  Understanding Basic Management of Acute Myocardial Infarction, Robert Paine, M.D., Chief of the Department of Medicine, St. Luke's Hospital, St. Louis.
Sponsored by the Missouri Society of Internal Medicine and the Missouri Chapter, American College of Physicians.
*11:00 AM *Symposium on Gastrointestinal Disease.*
(Participants to be announced.)
Sponsored by the Missouri Society of Internal Medicine and the Missouri Chapter, American College of Physicians.
*11:00 AM *Perinatal Mortality Conference.*
Moderator: William C. Mixson, M.D., Kansas City.
  Panel Participants:
    Richard A. Guthrie, M.D., Columbia.
    Robert C. Rosan, M.D., St. Louis.
    Robert L. Newman, M.D., Kansas City.
Sponsored by the Missouri Obstetrical and Gynecological Society.
*11:00 AM *Hyperactive Child—Diagnosis and Treatment.*
(Moderator and Panel Participants to be announced.)
Sponsored by Missouri Academy of Psychiatry.
12:30 PM Missouri University Alumni Luncheon.
Missouri Obstetrical and Gynecological Society Luncheon.
  James P. Youngblood, M.D., Kansas City, will present the Maternal Mortality Report.
* 2:00 PM *Abdominal Trauma.* (Continued)
Moderator: Lawrence Evans, M.D., Kansas City.
  Panel Participants:
    John A. Collins, M.D., St. Louis.
    John Ochsner, M.D., New Orleans, La.
Sponsored by Missouri State Surgical Society.
* 2:00 PM *Symposium on Endocrinology.*
(Participants to be announced.)
Sponsored by the Missouri Society of Internal Medicine and the Missouri Chapter, American College of Physicians.

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* Concurrent Sessions.

° 2:00 PM *Symposium on Neurology.*
Differential Diagnosis of Coma, Violet B. Matovich, M.D., Chief of Neurology, VA Hospital, Kansas City.
Sponsored by the Missouri Society of Internal Medicine and the Missouri Chapter, American College of Physicians.

° 2:00 PM *Suicide and Depression.*
Moderator: Edwin D. Wolfgram, M.D., St. Louis.
Participants:
George Winokur, M.D., Head of the Department of Psychiatry, State University of Iowa School of Medicine.
Sponsored by the Missouri Psychiatric Association.

° 2:00 PM *Symposium on Asthma, Diagnosis and Treatment.*
Panel Participants:
Raymond G. Slavin, M.D., St. Louis University School of Medicine, St. Louis.
Elliott F. Ellis, Chief, Pediatric Allergy Department, National Jewish Hospital, Denver.
Robert G. Lovell, M.D., University of Michigan Medical Center, Ann Arbor.
Lloyd A. Hollinger, M.D., Medical Director, Pulmonary Laboratory, Baptist Memorial Hospital, Kansas City.
Orville R. Withers, M.D., Clinical Professor of Medicine Emeritus, University of Kansas School of Medicine, Kansas City, Kan.
Sponsored by Missouri State Allergy Association.

3:30 PM Intermission to view exhibits.
4:00 PM House of Delegates, second session.
5:30 PM Missouri State Medical Foundation Annual Meeting.
6:00 PM Reference Committee Meetings.
6:00 PM Dinner Meetings:
Missouri Academy of Psychiatry
Missouri Radiological Society
Missouri State Allergy Association
Missouri Federation of Urologists
Missouri Psychiatric Association—Guest Speaker, Edward Busse, M.D., President, American Psychiatric Association.
Missouri State Surgical Society—Top of the Tower, *Surgical Intensive Care,* John Collins, M.D., St. Louis.

Saturday, April 8

8:00 AM Registration.
9:00 AM *Comparative Costs of Medical Care.*
Moderator: Lawrence W. O'Neal, M.D., St. Louis.
Participants:
The Patients' Costs of Care, Direct and Indirect, Mr. Paul Sanders, Consultant on Neighborhood Health Centers, ARCH, St. Louis.
Contracting, Negotiating, and Licensing Delivers the Dollars to the High Cost Systems and Retards Ambulatory Care Center Growths, Dr. O'Neal.
If Ambulatory Centers Develop, Hospital Costs Will Rise, C. O. Vermillion, M.D., St. Louis.
The Difference in Cost of the Same Care Described in Terms of Results, Richard Danis, M.D., St. Louis.

10:30 AM Intermission to view exhibits.
°11:00 AM *Pulmonary Problems in Surgical Patients,* Gerald F. Tuohy, M.D., St. Luke's Hospital, Kansas City.
Coronary By-Pass Operations, William A. Reed, M.D., St. Luke's Hospital, Kansas City.
Moderator: Hugh E. Stephenson, M.D., Columbia.
Sponsored by Missouri State Surgical Society.

°11:00 AM *Symposium on Infectious Diseases.*
Mycoplasma Infections: Recognition and Treatment, Chien Liu, M.D., Head of the Section of Infectious Diseases, University of Kansas Medical Center.
Infectious Mono, E.B. Virus and Neoplasma, Douglas W. Voth, M.D., Section of Infectious Diseases, University of Kansas Medical Center.
Sponsored by Missouri Society of Internal Medicine and Missouri Chapter, American College of Physicians.

° Concurrent Sessions.

*11:00 AM *Symposium on Pediatric Urology.*
Jointly sponsored by
Missouri Federation of Urologists, Missouri Radiological Society and Missouri Chapter, American Academy of Pediatrics.
Panel Participants:
Thomas M. Holder, M.D., Kansas City, Kansas.
(Additional speakers to be announced.)

*11:00 AM *Symposium on Carotid Occlusive Disease,* Thomas P. Kearns, M.D., Mayo Clinic, Rochester, Minn.
Moderator: Robert C. Drews, St. Louis.
(Other Participants to be announced.)
Sponsored by Missouri Ophthalmological Society, Inc.

12:30 PM MSMA General Luncheon—Program and Speaker to be announced.
Fifty-Year Club Luncheon.
Missouri Ophthalmological Society, Inc., Luncheon.
Missouri Association of Neurological Surgeons Luncheon.

* 2:30 PM *Health Maintenance Organizations (HMO's).*
Moderator: William D. Hoadley, M.D., Kansas City.
Participants:
Research, Development and Operation of HMO, C. Stanley Custer, M.D., Marshfield Clinic, Marshfield, Wis.
Federal Viewpoint, Holman R. Wherritt, M.D., Regional Health Director, Department of HEW, Kansas City.

* 2:30 PM *The Retinopathy of Sarcoidosis,* Thomas P. Kearns, M.D., Mayo Clinic, Rochester, Minn.
Moderator: Robert C. Drews, M.D., St. Louis.
Sponsored by Missouri Ophthalmological Society, Inc.

4:00 PM Intermission to view exhibits.
5:00 PM St. Louis University Medical Alumni Cocktail Party.
5:00 PM Washington University Medical Alumni Cocktail Party.
6:30 PM Social Hour for those Attending Banquet.
7:15 PM Annual Banquet in Honor of Past-Presidents.

Sunday, April 9

7:30 AM House of Delegates, breakfast and final session.

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* Concurrent Sessions.

MEETINGS TO BE HELD IN CONJUNCTION WITH THE MSMA 114TH ANNUAL SESSION

(**Please Note:** Although the following meetings are a part of the MSMA Annual Session program, they are printed separately for clarity. All members of the MSMA are invited to attend the following meetings.)

Annual Meeting

MISSOURI DERMATOLOGICAL SOCIETY, INC.

Saturday, Sunday, April 8-9, 1972

This annual meeting will be held in conjunction with the Missouri State Medical Association Annual Session. (Saturday session—Burgundy Room, Muehlebach Hotel. Sunday session—Kansas City General Hospital.)

MISSOURI SOCIETY OF PATHOLOGY*

Program on Medical Genetics

Saturday, April 8, 1972

8:00 AM Registration—Towers 21-22. Registration Fee, $10.00.
9:00 AM *Introduction and Molecular Biology,* Raymond J. Caffrey, M.D., Pathologist, Research Hospital, Kansas City.
9:30 AM *Classical Genetics (Mendelism),* Harold E. Cross, M.D., Ph.D., Resident and Fellow in Ophthalmology, Wilmer Institute, Johns Hopkins Hospital.
10:15 AM Coffee Break.

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* In cooperation with the Missouri State Medical Association and supported in part by the National Foundation—March of Dimes.

Registrants who are members of the Missouri Society of Pathology, as well as non-members, are invited to register for the MSMA Meeting without charge at the MSMA Registration Desk in the Royal Hall.

10:30 AM *Recessive Disease,* R. Rodney Howell, M.D., Associate Professor of Pediatrics, Johns Hopkins Hospital.
11:15 AM *Dominant and Multifactorial Disease,* Harold E. Cross, M.D.
12:00 NOON Lunch.
1:30 PM *Chromosomal Disease,* Raymond J. Caffrey, M.D.
2:15 PM *Laboratory Aspects of Genetic Disease Including Use of Amniocentesis,* R. Rodney Howell, M.D.
3:00 PM Coffee Break.
3:15 PM *Laboratory Aspects . . .* (Continued).
3:45 PM *Genetic Counseling and Future of Medical Genetics,* Harold E. Cross, M.D.
4:30 PM Panel Discussion.

First Annual Convention

MISSOURI PSYCHIATRIC ASSOCIATION

Friday, April 7

Lido Room

1:30 to 2:00 PM Short paper of primary interest to Psychiatrists.
2:00 to 3:30 PM *Suicide and Depression,* George Winokur, M.D., Department of Psychiatry, State University of Iowa School of Medicine.
This program of general interest to all physicians.
3:30 to 4:00 PM Short paper of primary interest to Psychiatrists.
4:00 to 4:30 PM Business Meeting.
All sessions to be held in the Lido Room.
6:00 PM Social Hour and Banquet. (Room to be assigned.)
Guest Speaker: Ewald Busse, M.D., President, American Psychiatric Association.

Watch for Your Special Hotel Reservation Card!

For the convenience of members who plan to reserve rooms at the Muehlebach Hotel, the MSMA will mail a special, postage-paid reservation card with room rates and other pertinent information.

You should receive your reservation card later this month. Please forward it to the hotel as soon as possible for best accommodations.

April 6-9, 1972

MISSOURI STATE MEDICAL ASSOCIATION

114th ANNUAL SESSION

Muehlebach Hotel
Kansas City

Remember! The Greene County "Singing Doctors" and a 17-piece orchestra will be featured at the gala Presidents' Banquet and Dance on Saturday, April 8!

Special Article

Why AMA Membership?

By

TIMOTHY B. NORBECK, St. Louis*

Assistant Director
Department of Field Services
American Medical Association

"WHAT HAS THE AMA EVER DONE FOR ME? Why should I, as a physician, become a member of the American Medical Association? What am I actually getting for my dues?"

I have heard these questions voiced by numerous physicians throughout the country, and I appreciate having the opportunity to share the many answers with you.

We haven't time to discuss all of the divisions, councils and committees, but one of the most active divisions of the AMA is the Law Division. This division provides legal opinions, guidance, information on medical liability, taxation, insurance, advertising, copyrights and other matters to any physician-member who chooses to avail himself of these services. Tens of thousands elect to do so every year and write in for guidance on these and many other problems. Under the Law Division and on behalf of physicians and the public alike, the Department of Investigation wages a relentless battle against charlatans and quacks every day of the year.

The AMA archive library in Chicago represents another excellent service available to AMA members. In an average month, the library receives some 3,000 requests for research and another 750 for books and medical journals. In addition, approximately 25,000 pages of material are photocopied and mailed out each month.

Any physician interested in legislation and governmental affairs needs only to contact the AMA Public Affairs Division or the Department of Field Service for immediate and up-to-date information on the national legislative scene. The American Medical Political Action Committee (AMPAC), the political arm of the AMA, stands ready to inform a member on political matters.

The AMA's Speakers Program provides interested AMA members with valuable assistance and training in the delivery and preparation of speeches through speech seminars and speakers' workshops. Prepared speeches for various audiences are also available from the AMA.

Your American Medical Association also sponsors or is in some way involved in nearly 1,000 different meetings a year. The AMA Annual Convention is the most significant postgraduate medical study session in the world. It involves approximately 400 scientific sessions, between 250 and 300 scientific exhibits, nearly 200 industrial exhibits illustrating new drugs, medical and surgical equipment and medical books and outstanding medical motion pictures.

Most physicians who are either cognizant of or who have gone on to avail themselves of these services are very impressed with the expertise and help available from the AMA. Yet, I have also talked with physicians who have told me rather bluntly that these services do not interest them. Some have said, "I don't need any information from your Law Division; I couldn't care less about your library; legislation and politics bore me; I am not called upon to make speeches; and, finally, I don't have the time to attend AMA medical meetings. Now with all that in mind, what can the AMA do for me and why should I become a member?" There are still many reasons for physicians to join the American Medical Association.

The publications alone make an AMA membership a worthwhile endeavor. Some of these include a weekly *American Medical News* and *Journal of the American Medical Association* (JAMA); *Today's Health Guide,* a monthly specialty journal; *AMA Drug Evaluations,* drug abuse kits and many others. A very good retirement and disability insurance program is also available to AMA members, and professional liability coverage may soon be included. Pilot programs for professional liability have been launched with the intention of eventually offering such protection to AMA members on a nationwide basis.

While not being very large in size, the AMA

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* This presentation was made by Mr. Norbeck at the Dec. 11-12, 1971 meeting of the Missouri State Medical Association Council in Columbia.

Washington lobby is quite effective and does an outstanding job in representing the physicians of this country. All physicians should be aware of the problems encountered daily by the AMA's Washington Office. For example, there were 25,000 bills introduced in the 91st Congress—2,500 of which had medical implications. Included in this latter group of bills were attempts for unannounced federal inspection of your records, federally-run peer review, compulsory generic prescribing, national fee schedules and promotion of HMO's or comprehensive group practice prepayment plans as the "only really effective way of rendering health care" plus a host of others. Your lobby in Washington, consisting of four very capable men, successfully opposed such measures in the best interests of both physician and patient alike. The Washington Office fills 600 requests per month from governmental agencies and congressmen and senators, and our men have the finest professional relationships that exist in the halls of Congress. It might interest you to know that organized labor has 125 registered lobbyists in Washington and more than twice that many unregistered representatives.

AMA members have an opportunity to participate in the political process through membership in AMPAC. While lobbying techniques are highly important in accomplishing legislative aims, many people have recognized the fact that it is necessary to be politically active in order to be fully successful in carrying out these legislative objectives. Organized labor learned many years ago that legislators are primarily responsive to either those who help get them elected or those who have the ability to keep them home on election day. In the 89th Congress, some 1,600 bills affecting health care were introduced. From that number emerged Medicare, Medicaid, regional medical programs and comprehensive health planning—to mention a few of them. It is far from coincidental that 65 members of the Senate and 298 members of the House of Representatives from that Congress were elected with union support.

Physicians easily forget that under Medicare, it was the AMA who fought for shorter forms, a usual and customary fee concept and the option of taking an assignment or billing direct. The AMA won that battle for its physicians on all three counts.

Physicians forget that the AMA has provided medical students, interns and residents with more than 42,000 loans totalling over $46 million through its Medical Education Loan Guarantee Program. They also forget that the AMA has contributed millions of dollars and legislative support to medical schools and efforts to expand facilities.

Some physicians say that "the AMA doesn't reflect my opinion" on a certain issue. My answer to that is simply, "Since when did you *always* agree with your partner, your church, your county and state medical associations, your government or your wife, for that matter?" The AMA cannot possibly always reflect the individual opinions of its 220,000 members.

When discussing AMA membership, every physician in the country should ask himself the following four questions:

1. If not the AMA, whom would you like to see represent physicians in the accreditation of medical schools, postgraduate education and continuing education?
2. If not the AMA, whom would you entrust with the responsibility as the developer, repository and arbiter of medical ethics?
3. If not the AMA, whom would you like to see represent the needs of physicians in accrediting hospitals and establishing the essentials for training allied health personnel?
4. If not the AMA, whom do you want to preserve the professionalism of medicine?

In discussing AMA membership, one physician told me recently, "Being a member of one's county and state medical associations but refusing to join the AMA is tantamount to the individual who becomes a citizen of his county and state but does not elect to be a citizen of his country."

What do you think?

Mark Your Calendar Today!

114th MSMA ANNUAL SESSION

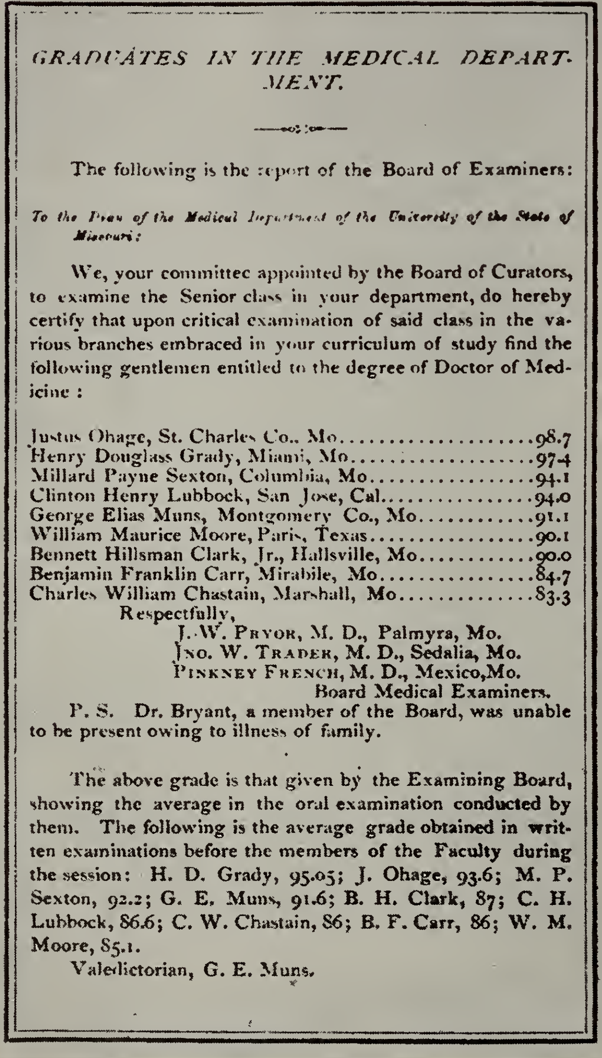
April 6-9, 1972 Muehlebach Hotel Kansas City

HUGH E. STEPHENSON, JR., M.D., ***Columbia***

Justus Ohage—America's Premier Cholecystectomy Surgeon

THE FIRST CHOLECYSTECTOMY in the Western Hemisphere took place on Sept. 24, 1886. Today, a cholecystectomy is one of the most frequently performed major operative procedures, accounting for almost 2% of all indications for hospitalization. Last year, more than 30,000 cholecystectomies were performed in hospitals of this country.

Missouri has reason to be proud of America's "first cholecystectomy surgeon" for it was only six years earlier, in 1880, that President Samuel S. Laws, seventh president of the University of Missouri, handed young Justus Ohage his medical diploma. As it does today, the University had a precommencement exercise honoring the medical graduates. On Monday evening, May 31, 1880, the nine members of the graduating class assembled in the chapel on the campus at the University of Missouri in Columbia to receive their degrees.



GRADUATES IN THE MEDICAL DEPARTMENT.

The following is the report of the Board of Examiners:

To the Dean of the Medical Department of the University of the State of Missouri:

We, your committee appointed by the Board of Curators, to examine the Senior class in your department, do hereby certify that upon critical examination of said class in the various branches embraced in your curriculum of study find the following gentlemen entitled to the degree of Doctor of Medicine :

Justus Ohage, St. Charles Co., Mo	98.7
Henry Douglass Grady, Miami, Mo	97.4
Millard Payne Sexton, Columbia, Mo	94.1
Clinton Henry Lubbock, San Jose, Cal	94.0
George Elias Muns, Montgomery Co., Mo	91.1
William Maurice Moore, Paris, Texas	90.1
Bennett Hillsman Clark, Jr., Hallsville, Mo	90.0
Benjamin Franklin Carr, Mirabile, Mo	84.7
Charles William Chastain, Marshall, Mo	83.3

Respectfully,
J. W. PRYOR, M. D., Palmyra, Mo.
JNO. W. TRADER, M. D., Sedalia, Mo.
PINKNEY FRENCH, M. D., Mexico, Mo.
Board Medical Examiners.

P. S. Dr. Bryant, a member of the Board, was unable to be present owing to illness of family.

The above grade is that given by the Examining Board, showing the average in the oral examination conducted by them. The following is the average grade obtained in written examinations before the members of the Faculty during the session: H. D. Grady, 95.05; J. Ohage, 93.6; M. P. Sexton, 92.2; G. E. Muns, 91.6; B. H. Clark, 87; C. H. Lubbock, 86.6; C. W. Chastain, 86; B. F. Carr, 86; W. M. Moore, 85.1.

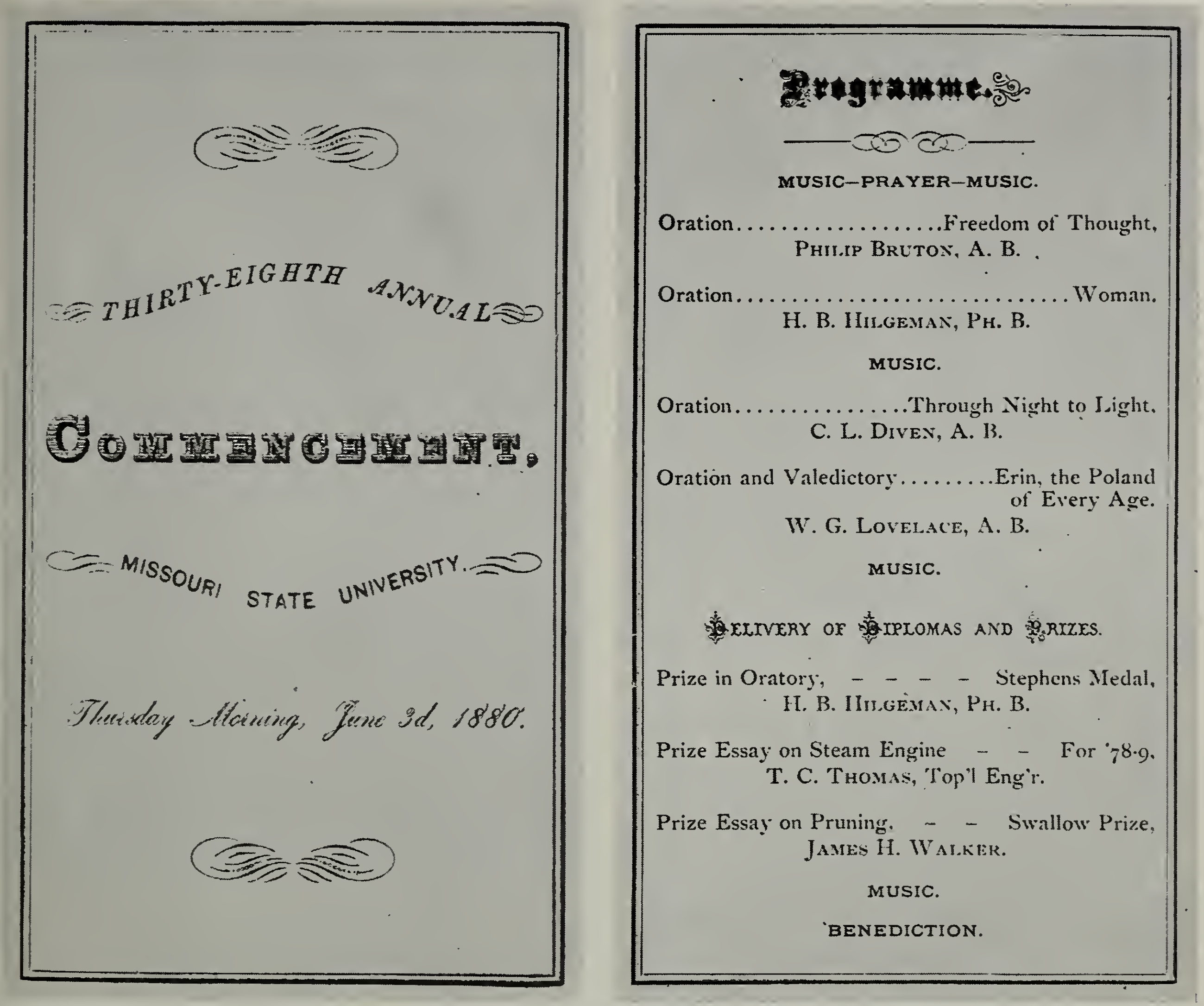
Valedictorian, G. E. Muns.

Fig. 1 Board of Medical Examiner's report for 1880.

According to the account in the *Weekly Missouri Statesman* on Friday, June 4, 1880, this was the 17th annual precommencement program for graduating physicians at the University of Missouri. The principal address by Dr. J. H. Hanna of Ashley in Pike County, Mo. was titled "Magnitude of the Physician's Work: Something of the Way to Success: The Perils and Enemies of the Way." According to the reporter covering the event that evening 91 years ago, "The intense earnestness of the address was the most noticeable and, perhaps, the most interesting feature. It was full of profitable advice to the profession and was equally applicable to young men of every profession. It was an excellent homily upon the duties and responsibilities of life, and we doubt not left a favorable and lasting impression on the minds of the audience."

Perhaps the reporter's prediction, indeed, was accurate in the case of the young graduate, Justus Ohage. Perhaps, also, prophetic were his grades on the oral portion of the examination given by the Board of Medical Examiners. Ohage's 98.7 score was the highest of the graduating class (Fig. 1). In the written examinations before the members of the faculty, Ohage ranked second.

After attending the 38th annual commencement of the University of Missouri on Thursday morning, June 3, 1880 (Fig. 2), Justus Ohage took his wife and young child and left almost immediately for Germany to pursue postgraduate medical studies at Göttingen and at the University of Kiel. Almost at once, he came under the influence of Professor von Es-



THIRTY-EIGHTH ANNUAL

Commencement,

MISSOURI STATE UNIVERSITY.

Thursday Morning, June 3d, 1880.

Programme.

MUSIC—PRAYER—MUSIC.

Oration..................Freedom of Thought.
Philip Bruton, A. B.

Oration.............................Woman.
H. B. Hilgeman, Ph. B.

MUSIC.

Oration...............Through Night to Light.
C. L. Diven, A. B.

Oration and Valedictory.........Erin, the Poland of Every Age.
W. G. Lovelace, A. B.

MUSIC.

Delivery of Diplomas and Prizes.

Prize in Oratory, – – – – Stephens Medal.
H. B. Hilgeman, Ph. B.

Prize Essay on Steam Engine – – For '78-9.
T. C. Thomas, Top'l Eng'r.

Prize Essay on Pruning. – – Swallow Prize.
James H. Walker.

MUSIC.

BENEDICTION.

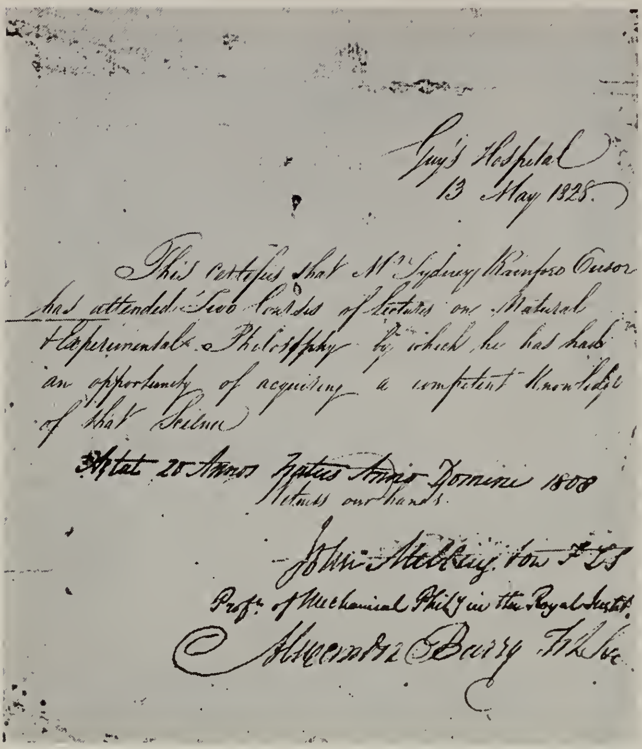
Fig. 2 University of Missouri commencement program for June 3, 1880.

march and, later, Von Virchow and Bernard Von Langenbeck of Berlin. It is interesting that Ohage records having seen the first spontaneous regression of a sarcoma of the jaw following an accidental infection of erysipelas.[1]

Before returning to the United States in the spring of 1881, he had served an internship in the "Henriettenstift." He also had visited hospitals in London. In Edinburgh, he received instruction in abdominal surgery from Keyes.

Thus, it is hardly a happenstance that Justus Ohage successfully performed the Western Hemisphere's first cholecystectomy five years later at the Saint Joseph's Hospital in St. Paul, Minn. During his senior year at medical school, Justus Ohage served as a prodissector in anatomy, thus helping to pay his tuition and living expenses. Although the University of Missouri gave him his formal medical education, much of his early background also prepared him for that September morning in 1886. For example, Doctor Ohage's father was a successful surgeon in Hannover, Germany at the time of his son's birth on Oct. 13, 1849. His father-in-law was graduated as a physician from Guy's Hospital in London (Fig. 3). Even before going to medical school, Justus Ohage was studying and working with his father and Professor Werner Langenbeck during the years 1865 to 1870 in the Hannover Clinic. Werner Langenbeck was a nephew of one of Germany's greatest surgeons of the day, Bernard von Langenbeck.

Medical schools today often pridefully point to the varied and widespread experiences of their entering freshman medical students as if this were a sign of the times. What about Justus Ohage? Few medical students have had a more adventuresome, colorful and exciting background. Ohage was a "drop out" at age 14 when he and two of his friends left their homes in

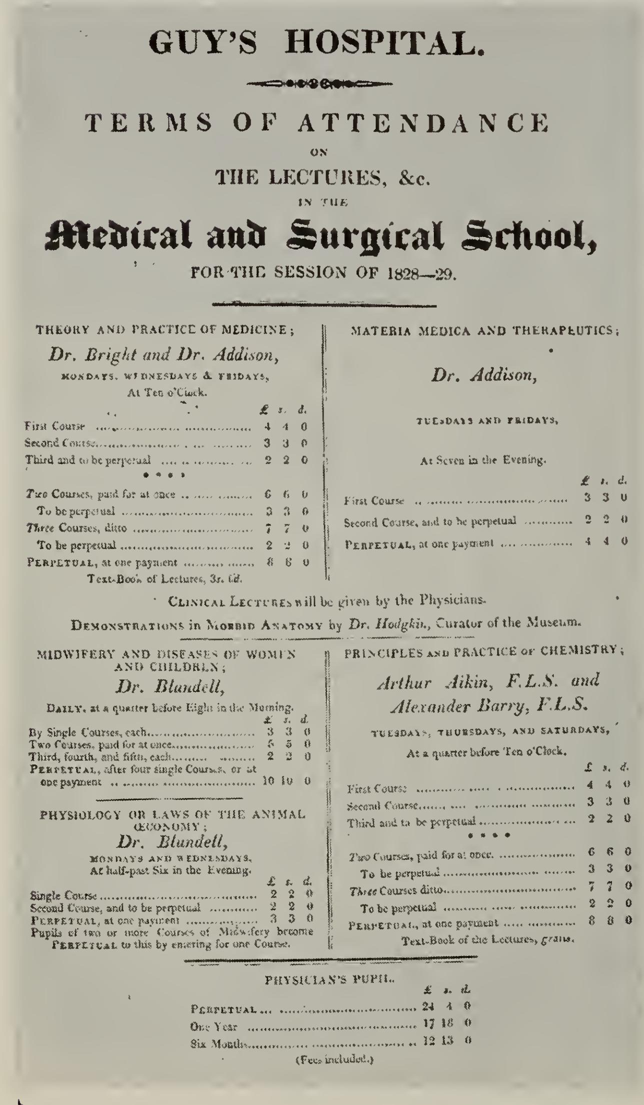


Guy's Hospital
13 May 1828.

This certifies that Mr Sydney Rainford Ensor has attended Two Courses of Lectures on Natural & Experimental Philosophy by which he has had an opportunity of acquiring a competent knowledge of that Science.

Ætat 20 Annos Natus Anno Domini 1808
Witness our hands.

John Millington F.L.S.
Profr. of Mechanical Phily in the Royal Instn.
Alexander Barry F.L.Sc



GUY'S HOSPITAL.

TERMS OF ATTENDANCE
ON
THE LECTURES, &c.
IN THE
Medical and Surgical School,
FOR THE SESSION OF 1828—29.

THEORY AND PRACTICE OF MEDICINE;
Dr. Bright and Dr. Addison,
MONDAYS, WEDNESDAYS & FRIDAYS,
At Ten o'Clock.

	£	s.	d.
First Course	4	4	0
Second Course	3	3	0
Third and to be perpetual	2	2	0
Two Courses, paid for at once	6	6	0
To be perpetual	3	3	0
Three Courses, ditto	7	7	0
To be perpetual	2	2	0
Perpetual, at one payment	8	8	0

Text-Book of Lectures, 3s. 6d.

MATERIA MEDICA AND THERAPEUTICS;
Dr. Addison,
TUESDAYS AND FRIDAYS,
At Seven in the Evening.

	£	s.	d.
First Course	3	3	0
Second Course, and to be perpetual	2	2	0
Perpetual, at one payment	4	4	0

Clinical Lectures will be given by the Physicians.

Demonstrations in Morbid Anatomy by *Dr. Hodgkin,* Curator of the Museum.

MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN;
Dr. Blundell,
Daily, at a quarter before Eight in the Morning.

	£	s.	d.
By Single Courses, each	3	3	0
Two Courses, paid for at once	5	5	0
Third, fourth, and fifth, each	2	2	0
Perpetual, after four single Courses, or at one payment	10	10	0

PHYSIOLOGY OR LAWS OF THE ANIMAL ŒCONOMY;
Dr. Blundell,
MONDAYS AND WEDNESDAYS,
At half-past Six in the Evening.

	£	s.	d.
Single Course	2	2	0
Second Course, and to be perpetual	2	2	0
Perpetual, at one payment	3	3	0

Pupils of two or more Courses of Midwifery become Perpetual to this by entering for one Course.

PRINCIPLES AND PRACTICE OF CHEMISTRY;
Arthur Aikin, F.L.S. and Alexander Barry, F.L.S.
TUESDAYS, THURSDAYS, AND SATURDAYS,
At a quarter before Ten o'Clock.

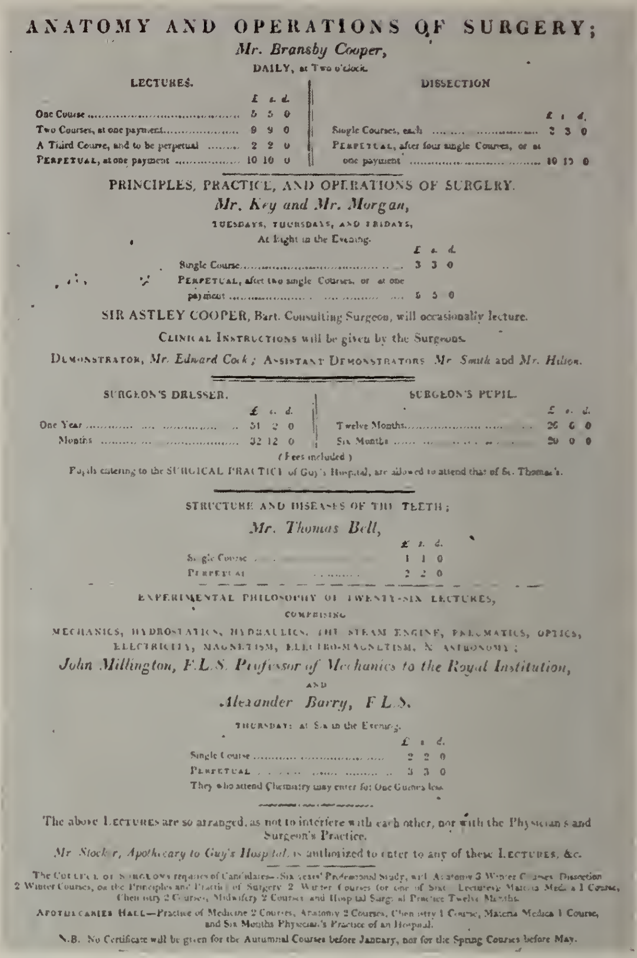
	£	s.	d.
First Course	4	4	0
Second Course	3	3	0
Third and to be perpetual	2	2	0
Two Courses, paid for at once	6	6	0
To be perpetual	3	3	0
Three Courses ditto	7	7	0
To be perpetual	2	2	0
Perpetual, at one payment	8	8	0

Text-Book of the Lectures, *gratis.*

PHYSICIAN'S PUPIL.

	£	s.	d.
Perpetual	24	4	0
One Year	17	18	0
Six Months	12	13	0

(Fees included.)



ANATOMY AND OPERATIONS OF SURGERY;
Mr. Bransby Cooper,
DAILY, at Two o'clock.

LECTURES.

	£	s.	d.
One Course	5	5	0
Two Courses, at one payment	9	9	0
A Third Course, and to be perpetual	2	2	0
Perpetual, at one payment	10	10	0

DISSECTION

	£	s.	d.
Single Courses, each	3	3	0
Perpetual, after four single Courses, or at one payment	10	10	0

PRINCIPLES, PRACTICE, AND OPERATIONS OF SURGERY.
Mr. Key and Mr. Morgan,
TUESDAYS, THURSDAYS, AND FRIDAYS,
At Eight in the Evening.

	£	s.	d.
Single Course	3	3	0
Perpetual, after two single Courses, or at one payment	5	5	0

SIR ASTLEY COOPER, Bart. Consulting Surgeon, will occasionally lecture.

Clinical Instructions will be given by the Surgeons.

Demonstrator, *Mr. Edward Cock;* Assistant Demonstrators *Mr. Smith* and *Mr. Hilton.*

SURGEON'S DRESSER.

	£	s.	d.
One Year	51	2	0
Months	32	12	0

SURGEON'S PUPIL.

	£	s.	d.
Twelve Months	26	6	0
Six Months	20	0	0

(Fees included)

Pupils entering to the SURGICAL PRACTICE of Guy's Hospital, are allowed to attend that of St. Thomas's.

STRUCTURE AND DISEASES OF THE TEETH;
Mr. Thomas Bell,

	£	s.	d.
Single Course	1	1	0
Perpetual	2	2	0

EXPERIMENTAL PHILOSOPHY OF TWENTY-SIX LECTURES,
COMPRISING
MECHANICS, HYDROSTATICS, HYDRAULICS, THE STEAM ENGINE, PNEUMATICS, OPTICS, ELECTRICITY, MAGNETISM, ELECTRO-MAGNETISM, & ASTRONOMY;
John Millington, F.L.S. Professor of Mechanics to the Royal Institution,
AND
Alexander Barry, F.L.S.
THURSDAY: at Six in the Evening.

	£	s.	d.
Single Course	2	2	0
Perpetual	3	3	0

They who attend Chemistry may enter for One Guinea less.

The above Lectures are so arranged, as not to interfere with each other, nor with the Physician's and Surgeon's Practice.

Mr. Stocker, Apothecary to Guy's Hospital, is authorized to enter to any of these Lectures, &c.

The College of Surgeons requires of Candidates—Six years' Professional Study, with Anatomy 3 Winter Courses, Dissection 2 Winter Courses, on the Principles and Practice of Surgery 2 Winter Courses (or one of Sixty Lectures); Materia Medica 1 Course, Chemistry 2 Courses, Midwifery 2 Courses and Hospital Surgical Practice Twelve Months.

Apothecaries Hall—Practice of Medicine 2 Courses, Anatomy 2 Courses, Chemistry 1 Course, Materia Medica 1 Course, and Six Months Physician's Practice of an Hospital.

N.B. No Certificate will be given for the Autumnal Courses before January, nor for the Spring Courses before May.

Fig. 3 (Left and above) Doctor Ohage's father-in-law, Dr. Sidney Rainford Ensor, received his medical training at Guy's Hospital in London in 1828.

Hannover after having had a dispute with their school teacher. As Dr. Justus Ohage, Jr. states, "Figuring the jig was up, the three piled onto the next ship leaving for the United States and landed in the midst of the Civil War." It is said that Justus Ohage was the youngest soldier in the Army of the Potomac. While still only 15 years of age, he had already been wounded and was a patient in the Army Hospital at City Point, Va. It was there that Abraham Lincoln, having heard of Ohage's youth and remarkable bravery, came to his bedside and shook hands with him saying, "My boy, I thank you for the help you gave us. I hope you will be well soon and with your father and mother. God bless you!" Lee had just surrendered at Appomatox. Ohage had fought with the Eighth Regiment of the New Jersey Volunteers.

After the Civil War, he returned again to his home in Hannover and in the war of 1870, he served his country by acting as a stretcher bearer in Europe. Two years later, he served as a common sailor and crossed the Atlantic several times. Later, he worked with the construction crew of the Topeka and Atchison Railroad and became acquainted with the famous Buffalo Bill Cody. During his off hours with the construction crew, he found great enjoyment and relaxation in hunting. His lifetime adventures as a woodsman, fisherman and hunter have been subsequently recorded by Doctor Ohage in his book, "Sixty Years with Rod and Gun."

This intense interest in the outdoors and in hunting and fishing ultimately was largely responsible for his going to the University of Missouri Medical School and becoming a physician. For it was while hunting in the Missouri river bottoms in St. Charles County that he became acquainted with a young medical student, Thomas Ensor. Not only did he marry Thomas Ensor's sister, August Jane, but her father, Dr. Sidney Rainford Ensor, a physician, was probably influential in directing him to the University of Missouri School of Medicine in Columbia. Doctor Ensor, a native of London, England, came to America in 1834 and practiced medicine in Dog Prairie, Mo. (This was near O'Fallon, Mo.) Justus Ohage was married on May 10, 1877 and shortly thereafter left for Columbia.

Four years after his marriage, he arrived in Saint Paul, Minn. on May 10, 1881 to begin the practice of medicine and a life of dedicated effort that was to span more than half a century.

The first successful cholecystectomy in this country was performed on a 35-year-old married woman, who had had subjective complaints suggestive of cholelithiasis for three years.[2] On several occasions, she had been jaundiced but was not icteric when she was first seen by Doctor Ohage in his office on Sept. 23, 1886. On his examination at that time, he felt a freely movable oblong mass in the right hypochondrium, the lower end reaching almost to the iliac fossa. The patient sought medical aid because of constant pain in the right upper portion of the abdomen. She was admitted that day to Saint Joseph's Hospital in Saint Paul. (Saint Joseph's Hospital, formerly the chapel of Saint Paul, was converted into an Emergency Hospital during the cholera plague of 1853. This was Minnesota's first hospital.) She was operated on the following morning, Sept. 24, 1886. Doctor Ohage was assisted by four physicians and a "house surgeon."

The influence of Lister had permeated the surgical profession to the extent that strict antiseptic precautions were taken. The patient's abdomen was opened with a vertical incision about six inches long on the outer border of the right rectus muscle. The gallbladder was found to be markedly distended and there was a large stone impacted in the cystic duct. The stone was milked back into the gallbladder. The common duct was examined and found to be free and unobstructed. The cystic duct was ligated with carbolized silk, and the stump was dusted with iodoform. The right upper quadrant was washed with a solution of 1:2000 corrosive sublimate solution. No drainage of the gallbladder bed was attempted. The patient's postoperative course was generally satisfactory. When the dressing was first removed on the eighth postoperative day, the wound appeared well healed and the sutures were removed. One hundred and thirty-five stones were found within the gallbladder.

Even though the first cholecystotomy was performed by John F. Bobbs in Indianapolis on June 15, 1867, little was known about diseases of the gallbladder for some years.[3] In fact, Ohage states in an early publication, "Is life compatible without the existence of the gallbladder or not? I think it is. I consider the gallbladder merely an organ 'par complaisance,' less so than the urinary bladder and rectum, more so than the rudiment, the processus vermiformis, without which man would be certainly better off than with it."[4]

In an address before the Ramsey County Medical Society of Saint Paul, Minn. in 1887, Doctor Ohage concludes with the prediction that "The diseases of the gallbladder belong to the surgeon and only through him can speedy and permanent relief be obtained. That the profession at large is unacquainted with these facts is no wonder. The literature on the subject is very scanty. With the exception of the few ar-

Dr. Justus Ohage performed the first cholecystectomy in the Western Hemisphere in 1886, just six years after his graduation from the University of Missouri School of Medicine. Although he was later recognized as a superb surgeon and a leader of organized medicine in his native state, Minnesota, he had many ties with Missouri and its University. Few medical students have had a more adventuresome, colorful and exciting background.

Doctor Stephenson is Professor of Surgery at the University of Missouri School of Medicine.

Arthur los

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Fold-out Placeholder

This fold-out is being digitized, and will be inserted at a future date.

MSMF Names Mark Halvorson Exec VP; Elects Officers

Hector W. Benoit, Jr., M.D., Chairman of the Board of Directors of the Health Care Foundation of Missouri, has announced the appointment of Mr. E. Mark Halvorson as Executive Vice-President of the Foundation.

Mr. Halvorson, a native of Kansas City, formerly was a marketing-management consultant and executive director of a national marketing nounced the election of the following officers and directors: Hector W. Benoit, Jr., M.D., Kansas City, Chairman; Richard A. Michael, D.O., Jefferson City, Vice-Chairman; Claus A. Rohweder, D.O., Kirksville, Secretary; and John I. Matthews, M.D., Jefferson City, Treasurer.

The Health Care Foundation also has announced the appointment of the following officers and directors: Hector W. Benoit, Jr., M.D., Kansas City, Chairman; Richard A. Michael, D.O., Jefferson City, Vice-Chairman; Claus A. Rohweder, D.O., Kirksville, Secretary; and John I. Matthews, M.D., Jefferson City, Treasurer.

Directors are Eugene W. Egle, D.O., Bridgeton; Joseph L. Fisher, M.D., St. Joseph; Rae W. Froelich, M.D., Lebanon; Gerald L. Miller, M.D., Kansas City; and Joseph B. Vacca, M.D., St. Louis.

Ex officio members of the HCF Board are Mr. Halvorson, HCF Executive Vice-President; Raymond McIntyre, Executive Secretary of the Missouri State Medical Association; and Edward H. Borman, Executive Secretary of the Missouri Association of Osteopathic Physicians and Surgeons.

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ACTIONS: *Microbiology:* Phenoxymethyl penicillin exerts high *in vitro* activity against staphylococci (except penicillinase-producing strains), streptococci (groups A, C, G, H, L, and M) and pneumococci. Other organisms sensitive to phenoxymethyl penicillin are Corynebacterium *diphtheriae, Bacillus anthracis,* Clostridia, *Actinomyces bovis, Streptobacillus moniliformis, Listeria monocytogenes,* Leptospira, and *Neisseria gonorrhoeae. Treponema pallidum* is extremely sensitive. *Pharmacology:* Phenoxymethyl penicillin is more resistant to inactivation by gastric acid than penicillin G. It may be given with meals and average blood levels are two to five times higher than the levels following the same dose of oral penicillin G. Once absorbed, phenoxymethyl penicillin is about 80% bound to serum protein. Tissue levels are highest in the kidneys, with lesser amounts in the liver, skin, and intestines and small amounts in all other body tissues and cerebrospinal fluid. Only about 25% of the dose given is absorbed. In neonates, young infants, and individuals with impaired kidney function, excretion is considerably delayed.

INDICATIONS: Phenoxymethyl penicillin is indicated in the treatment of mild to moderately severe infections caused by penicillin G-sensitive microorganisms that are sensitive to the low serum levels common to this particular dosage form. Therapy should be guided by bacteriological studies (including sensitivity tests) and by clinical response. Culture and sensitivity testing are especially important in suspected staphylococcal infections because increased resistance has been reported. Phenoxymethyl penicillin is not active against penicillinase-producing bacteria.

Note: Severe pneumonia, empyema, bacteremia, pericarditis, meningitis, and arthritis should not be treated with phenoxymethyl penicillin during the acute stage.

Indicated surgical procedures should be performed.

Medical conditions in which oral penicillin therapy is indicated as prophylaxis: For the prevention of recurrence following rheumatic fever and/or chorea. To prevent bacterial endocarditis in patients with congenital and/or rheumatic heart lesions who are to undergo dental procedures or minor upper respiratory tract surgery or instrumentation.

Note: Oral penicillin should not be used as adjunctive prophylaxis for genitourinary instrumentation or surgery, lower intestinal tract surgery, sigmoidoscopy and childbirth.

CONTRAINDICATION: A previous hypersensitivity reaction to any penicillin.

WARNINGS: Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. While more frequent following parenteral therapy, anaphylaxis has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

Some individuals with a history of penicillin hypersensitivity reactions have experienced severe hypersensitivity reactions from a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines and corticosteroids.

PRECAUTIONS: Penicillin should be used with caution in individuals with histories of significant allergies and/or asthma.

The oral route of administration should not be relied on in patients with severe illness, or with nausea, vomiting, gastric dilatation, cardiospasm, or intestinal hypermotility.

Occasional patients will not absorb therapeutic amounts of orally administered penicillin.

In streptococcal infections, therapy must be sufficient to eliminate the organism (10 days minimum); otherwise the sequelae of streptococcal disease may occur. Cultures should be taken following completion of treatment to determine whether streptococci have been eradicated.

Prolonged use of antibiotics may promote the overgrowth of nonsusceptible organisms, including fungi. Should superinfection occur, appropriate measures should be taken.

ADVERSE REACTIONS: While the incidence of reactions to oral penicillins is much less than with parenteral therapy, it should be remembered that all degrees of hypersensitivity, including fatal anaphylaxis, have been reported with oral penicillin.

The most common reactions to oral penicillin are nausea, vomiting, epigastric distress, diarrhea, and black hairy tongue. The hypersensitivity reactions reported are skin eruptions (maculopapular to exfoliative dermatitis), urticaria and other serum sickness reactions, laryngeal edema, and anaphylaxis. Fever and eosinophilia may frequently be the only reaction observed. Hemolytic anemia, leucopenia, thrombocytopenia, neuropathy, and nephropathy are infrequent reactions and are usually associated with high doses of parenteral penicillin.

HOW SUPPLIED: Pfizerpen VK (potassium phenoxymethyl penicillin) for Oral Solution. Each 5 ml. of reconstituted solution contains potassium phenoxymethyl penicillin equivalent to 125 mg. (200,000 units) or 250 mg. (400,000 units) of phenoxymethyl penicillin.

125 mg. bottles of 100 ml. and 150 ml.
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Pfizerpen VK (potassium phenoxymethyl penicillin) Tablets. Each tablet contains potassium phenoxymethyl penicillin equivalent to 250 mg. (400,000 units) or 500 mg. (800,000 units) of phenoxymethyl penicillin.

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WASHINGTON

The Price Commission restricted increases in a physician's fees to 2.5% a year when justified by increases in his costs, but granted the right of appeal to the Internal Revenue Service for a further increase for those physicians with greater increases in their costs of conducting a practice.

The official regulations went into effect on Dec. 29, 1971, a day before they were published in the Federal Register. The commission earlier had announced guidelines on which the regulations were based.

The regulations require that a physician maintain a schedule of fees and increases with a sign in his office that such a schedule is available for inspection, but he does not have to post them in his office.

After issuance of the regulations, AMA officials continued meetings with federal officials in efforts to effect modifications of provisions considered unfair to physicians. The meetings started before issuance of the guidelines.

One meeting was with Donald Rumsfeld, director of the President's Cost of Living Council, a few days before the regulations were issued. Dr. Max H. Parrott, chairman of the AMA Board of Trustees and head of its delegation, voiced strong exceptions to some of the price control provisions which would deny treatment equal to that given other providers of professional services.

The Price Commission has ruled that "a non-institutional provider of health care services may charge a price in excess of the base price only to reflect allowable costs in effect on Nov. 14, 1971, and allowable cost increases incurred after November 14 reduced to reflect productivity gains and only to the extent that such increased price shall not result in an increase in such provider's profit margin as a percentage of revenues before income tax, over that prevailing in the base period, providing, however, that the provider's aggregate price increases shall not exceed 2.5% per year."

The AMA has pointed out that the Price Commission's 2.5% limitation on the increase of physicians' fees was discriminatory inasmuch as other providers of services could reflect actual increases in cost by a "pass through" of such costs, a procedure denied physicians under the proposed regulations.

The AMA also pointed out that while the Price Commission urged increased physician productivity, the proposed regulations might well decrease productivity.

The physician cannot generally work longer hours than he is presently working, the AMA position paper said. He can expand his office space, purchase new testing and diagnostic aids and employ more staff.

But being held to a 2.5% fee increase, in the face of higher costs, he is apt to do none of these things.

The AMA paper also took exception to the proposed requirement for the posting or having available a fee schedule. It is simply not practical for a physician to arrive at a schedule of prices for each and every one of the numerous services he renders, the AMA said, pointing out that it was its understanding that the Committee on Health Services Industry, an advisory body to the Price Commission, recognized this fact and had recommended that posting be limited to institutional providers.

The AMA also pointed out that the proposed guidelines do not provide for a procedure under which physicians whose fees are below the norms in their communities may adjust their fees. Physicians usually maintain their fees for several years and then increase them by 10% or 20% to counter inflation, rather than impose annual increments of 25 cents or 50 cents, the AMA said, insisting that the proposed regulations should contain reasonable criteria for handling unusual situations such as these.

At the suggestion of Mr. Rumsfeld, the AMA has taken its case directly to C. Jackson Grayson, Jr., chairman of the Price Commission, and additional meetings have been scheduled. The full text of the AMA's position paper on this subject has been forwarded to all state medical societies.

* * *

President Nixon signed into law a sharply stepped-up program to combat cancer.

In signing the legislation before several hundred leaders in the field at a White House ceremony, Nixon expressed "hope that in the years ahead we will look back on this as the most significant action taken during this administration."

The new law, which authorizes expenditure of $1.6 billion in the next three years, gives the National Cancer Institute partial autonomy and puts it to a large extent under the White House although it remains in the National Institutes of Health.

Its chief will be appointed by the President, its activities will be monitored for the President by a special three-man advisory board and its budget will be submitted directly to the White House.

Nixon predicted the new organizational setup "will enable us to mobilize far more effectively both our human and our financial resources in the fight against this dread disease."

The revamped organizational structure is a compromise between proposals to establish a separate, wholly independent cancer authority under the White House and to leave NCI in NIH but with a greatly expanded program.

The main thrusts of the new cancer research program are being developed by a committee of 280 nongovernment scientific consultants and will be completed by March.

The prime goal will be to find drugs that are effective against "slow growing" tumors—malignancies that affect such organs as the lung, breast, colon and bladder and account for 85% of the 650,000 new cancer cases a year.

The Cancer Institute plans to organize "task forces" to launch a coordinated attack against specific forms of cancer, including lung, bladder, prostate and large bowel. This approach is credited with achieving substantial success in treating childhood leukemia.

* * *

An American Medical Association spokesman said a solution to the medical malpractice problem must be found "which will provide equitable protection for the patient and the physician and which will not contribute unreasonably to the cost of medical care."

Dr. Arthur J. Mannix, Jr., of New Rochelle, N.Y., outlined the AMA's position at a hearing of the government's special commission of medical practice. Dr. C. A. Hoffman, AMA president-elect and chairman of the AMA Professional Liability Committee, is a member of the Commission.

"The physician should be permitted to treat his patient in an atmosphere of mutual trust and confidence, without continual threat of malpractice charges," Doctor Mannix said.

Some means must be found which will provide equitable protection for the patient and the physician and which will not contribute unreasonably to the cost of medical care. The physician should be permitted to treat his patient in an atmosphere of mutual trust and confidence, without continual threat of malpractice charges.

"New systems, perhaps one based on scheduled benefits, or a system of limited and well-defined 'no fault' coverage may be the answer. We recognize that many questions will have to be considered when any major change is contemplated. Will the patient population, for example, be willing to yield its rights to adversary litigation as they know it now? In the interests of reduced medical care costs, would they accept, as another example, scheduled compensation, perhaps limiting recovery to economic losses? In any event, any viable solution will have to be based on acceptance by the public.

"We believe that additional experimentation with a variety of means may lead to a more satisfactory resolution of the problems facing us. The physicians of this country would welcome measures alleviating the many problems present today in the practice of medicine as it relates to malpractice liability. . . . The American Medical Association offers to this Commission its assistance as solutions are sought to this complex problem."

Doctor Mannix outlined the AMA's activities in the field which culiminated in the negotiation of a contract with CNA as insurance carrier and Marsh and McLennan as national administrator for the establishment of sponsored malpractice insurance in states which do not have them.

"We certainly could use her at the hospital!"

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No calculations are needed, test interpretation is simple.

Any of the commonly used T$_4$ thyroid function tests (P.B.I., T$_4$ By Column, Murphy-Pattee, Free Thyroxine) are useful in monitoring patients on T$_4$ because they *all* measure T$_4$. Patients on SYNTHROID are thereby easy to monitor because their results will fall within predictable, elevated test ranges. Of course, clinical assessment is the best criterion of the thyroid status of the drug-treated patient.

TEST	HYPOTHYROID	SYNTHROID THERAPEUTIC NORMAL
P.B.I.	Less than 4 mcg %	6-10 mcg %
T$_4$ By Column	Less than 3 mcg %	7-9 mcg %
T$_3$ (Resin)	Less than 25%	27-35%
T$_3$ (Red Cell)	Less than 11%	11.5-18%
Free Thyroxine	Less than 0.7 nanograms %	0.7-2.5 nanograms %
Murphy-Pattee	Less than 2.9 mcg %	4-11 mcg %

HISTORICAL
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TWO GOOD REASONS WHY THE ROAD TO NORMALIZED THYROID STATUS IS SO SMOOTH FOR THE SYNTHROID PATIENT.

(1) The onset of action of T$_4$ is gradual. It has a long in vivo "half-life" of over six days. (Occasional missed doses or accidental double-doses are of less concern because of this factor)^1; (2) since SYNTHROID contains only T$_4$, the potential for metabolic surges traceable to more potent iodides (T$_3$) is eliminated.

AS WITH ANY THYROID PREPARATION, CAUTIOUS OBSERVATION OF THE PATIENT DURING THE BEGINNING OF THERAPY WILL ALERT THE PHYSICIAN TO ANY UNTOWARD EFFECTS.

Side effects, when they do occur, are related to excessive dosage. Caution should be exercised in administering the drug to patients with cardiovascular disease. Read the accompanying prescribing information for additional data or write Flint Laboratories.

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yroxine (T_4) is, as you know,
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70 this process, called
eiodination," was demonstrated
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does convert to T_3, though the
ecise quantities are still being
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The conversion has been
nically demonstrated during the
ministration of T_4 to athyrotic
tients. Their thyroid status is
rmalized on SYNTHROID alone,
t the presence of T_3 in these
tients has been clearly shown.

WHY DOES SYNTHROID COST LESS THAN SYNTHETIC DRUGS CONTAINING T_3?

Very simple. T_3 costs more to make synthetically than does T_4. So it is economically necessary for a synthetic thyroid medication containing T_3 to cost more than one containing T_4 alone. Synthetic combinations cost patients nearly 50% more than SYNTHROID[3] because the T_3 costs more to start with; also there is the additional expense of formulating a tablet containing two active ingredients.

1. Latiolais, C. J., and Berry, C. C.: Misuse of Prescription Medications by Outpatients, *Drug Intelligence & Clin. Pharm.* 3:270-7, 1969.
2. Braverman, L. E., Ingbar, S. H., and Sterling, K.: Conversion of Thyroxine (T4) to Triiodothyronine (T3) in Athyreotic Human Subjects, *J. Clin. Invest.* 49:855-64, 1970.
3. American Druggist BLUEBOOK, March, 1971.

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Indications: SYNTHROID (sodium levothyroxine) is specific replacement therapy for diminished or absent thyroid function resulting from primary or secondary atrophy of the gland, congenital defect, surgery, excessive radiation, or antithyroid drugs. Indications for SYNTHROID (sodium levothyroxine) **Tablets** include myxedema, hypothyroidism without myxedema, hypothyroidism in pregnancy, pediatric and geriatric hypothyroidism, hypopituitary hypothyroidism, simple (nontoxic) goiter, and reproductive disorders associated with hypothyroidism. SYNTHROID (sodium levothyroxine) **for Injection** is indicated for intravenous use in myxedematous coma and other thyroid dysfunctions where rapid replacement of the hormone is required. The injection is also indicated for intramuscular use in cases where the oral route is suspect or contraindicated due to existing conditions or to absorption defects, and when a rapid onset of effect is not desired.

Precautions: As with other thyroid preparations, an overdosage may cause diarrhea or cramps, nervousness, tremors, tachycardia, vomiting and continued weight loss. These effects may begin after four or five days or may not become apparent for one to three weeks. Patients receiving the drug should be observed closely for signs of thyrotoxicosis. If indications of overdosage appear, discontinue medication for 2-6 days, then resume at a lower dosage level. In patients with diabetes mellitus, careful observations should be made for changes in insulin or other antidiabetic drug dosage requirements. If hypothyroidism is accompanied by adrenal insufficiency, as Addison's Disease (chronic subcortical insufficiency), Simmonds's Disease (panhypopituitarism) or Cushing's syndrome (hyperadrenalism), these dysfunctions must be corrected prior to and during SYNTHROID (sodium levothyroxine) administration. The drug should be administered with caution to patients with cardiovascular disease; development of chest pains or other aggravations of cardiovascular disease requires a reduction in dosage.

Contraindications: Thyrotoxicosis, acute myocardial infarction. **Side effects:** The effects of SYNTHROID (sodium levothyroxine) therapy are slow in being manifested. Side effects, when they do occur, are secondary to increased rates of body metabolism; sweating, heart palpitations with or without pain, leg cramps, and weight loss. Diarrhea, vomiting, and nervousness have also been observed. Myxedematous patients with heart disease have died from abrupt increases in dosage of thyroid drugs. Careful observation of the patient during the beginning of any thyroid therapy will alert the physician to any untoward effects.

In most cases with side effects, a reduction of dosage followed by a more gradual adjustment upward will result in a more accurate indication of the patient's dosage requirements without the appearance of side effects.

Dosage and Administration: The activity of a 0.1 mg. SYNTHROID (sodium levothyroxine) TABLET is equivalent to approximately one grain thyroid, U.S.P. Administer SYNTHROID tablets as a single daily dose, preferably after breakfast. In hypothyroidism without myxedema, the usual initial adult dose is 0.1 mg. daily, and may be increased by 0.1 mg. every 30 days until proper metabolic balance is attained. Clinical evaluation should be made monthly and PBI measurements about every 90 days. Final maintenance dosage will usually range from 0.2-0.4 mg. daily. In adult myxedema, starting dose should be 0.025 mg. daily. The dose may be increased to 0.05 mg. after two weeks and to 0.1 mg. at the end of a second two weeks. The daily dose may be further increased at two-month intervals by 0.1 mg. until the optimum maintenance dose is reached (0.1-1.0 mg. daily).

Supplied: Tablets: 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and color-coded, in bottles of 100, 500, and 1000. Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, N.F., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent. SYNTHROID (sodium levothyroxine) **for Injection** may be administered intravenously utilizing 200-400 mcg. of a solution containing 100 mcg. per ml. If significant improvement is not shown the following day, a repeat injection of 100-200 mcg. may be given.

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Missouri ABFP Charter Diplomates

Forty-three Missouri physicians have been named as charter diplomates of the American Board of Family Practice as a result of passing a certification examination administered under the aegis of the ABFP.

To achieve diplomate status, the physicians, through an intensive two-day examination, proved their ability in the areas of internal medicine, surgery, obstetrics-gynecology, pediatrics, psychiatry, preventive medicine and other traditional specialties and now are certified in medicine's newest specialty, Family Practice.

The 3,285 physicians, nationally, who earned their diplomate distinction are the vanguard of a new type of highly competent "people doctor" who accept responsibility for the patient's total health care and serve as the natural point of entry into the medical system.

Family practice was recognized and approved as a specialty on Feb. 8, 1969 by action of the Liaison Committee of the Advisory Board for Medical Specialties and the Council on Medical Education of the American Medical Association. The American Board of Family Practice was authorized to conduct examinations and to certify candidates who meet the qualifications and pass the examination.

The sponsoring organizations—the American Academy of General Practice (now American Academy of Family Practice) and the Section on General Practice of the AMA—after negotiations agreed to specify stipulations relating to composition of the Board of Directors of the American Board of Family Practice. Following the organizational period, the board consists of 15 members: five from the American Academy of Family Practice, five from the Section on General Practice of the AMA and one each from the specialty boards of surgery, internal medicine, pediatrics, obstetrics-gynecology and psychiatry-neurology.

The ABFP is unique among certifying boards because it offered no "grandfather clause" which allows doctors practicing in the specialty when a board is created to become diplomates of that board without examination. To qualify for the examination, each doctor completed a three-year family practice residency or has been in family practice a minimum of six years and has successfully completed 30 hours of postgraduate medical education.

These specialists are required to prove their competency in the field of comprehensive, continuing care of the family on a continuing basis by taking another examination and being recertified every six years.

The list of charter diplomates released by the ABFP, the 20th specialty board approved by the American Medical Association and the American Board of Medical Specialties, includes successful candidates from the first certification examination given in 1970, as well as those passing the examination in 1971.

Charter diplomates of the ABFP from Missouri are the following physicians:

A. Sherwood Baker, Columbia
Richard P. Bowles, Liberty
William David Bradshaw, Clinton
J. F. Carron, Arnold
David W. Chapman, Independence
John T. Crowe, Cape Girardeau
John Kent Day, Columbia
William LeRoy Doane, Grandview
Monaford D. Durnell, Lee's Summit
Joseph Efron, Florissant
H. Peter Ekern, Mexico
Albert Dale Eshelman, Independence
Jack M. Estes, St. Louis
William Leonard Fair, Chillicothe
Claude Calvin Farley, Kansas City
Marvin L. Fowler, West Plains
George David Groce, Fulton
David W. Hall, Springfield
Thomas W. Johnson, Kansas City
Ireland W. Kimball, Kansas City
John V. King, Webster Groves
W. M. Komanetsky, St. Louis
Donald E. Kuenzi, Kansas City
Charles R. Lewis, St. Louis
R. Stacy Long, Kansas City
Bobby Maurice McLain, Poplar Bluff
James Logan Mayfield, Crystal City
Richard L. Owens, Kansas City
William H. Poggemeier, St. Charles
Paul Revare, Kansas City
Charles T. Riley, Jr., Richmond
Edward Arthur Samuelson, Kansas City
Ted P. Smith, Rolla
Walter Jack Stelmach, Kansas City
Lawrence G. Stuerman, Louisiana
Robert H. Tanner, Jefferson City
P. M. Tiongson, St. Louis
Roy Thomas Waltrip, Jr., Sikeston
George Phillips Williams, Kansas City
Lester E. Wolcott, Columbia
Charles A. Worley, Sweet Springs
Paul R. Young, Columbia
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(warning: may be habit forming)	
Alcohol, 3.5%	

Non-narcotic for 6-8 hr. cough control

Robitussin-DM®

Each 5 cc. contains:

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Robitussin® extra benefit chart	Cough Suppressant	Antihistamine	Long-Acting (6-8 hours)	Nasal, Sinus Decongestant	Non-Narcotic
ROBITUSSIN®					●
ROBITUSSIN A-C®	●	●			
ROBITUSSIN-DM®	●		●		●
ROBITUSSIN-PE®				●	●
COUGH CALMERS®	■		■		■

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Notes of interest from Here . . . . and There

Physicians interested in helping the *Friends of Arrow Rock* establish a medical museum dedicated to the Pioneer Doctor (Circa 1840) are invited to purchase a new book, *Medicine on the Santa Fe Trail,* written by Dr. Thomas B. Hall of Arrow Rock. Published on Nov. 16, 1971, the 150th anniversary of the opening of the Santa Fe trail, the book records a wealth of Missouri, as well as general, medical history. The edition is limited to 1,000 numbered and autographed copies, 300 of which have been given to the Friends of Arrow Rock, a non-profit group. Profits will be used for the establishment of the museum. A member of the MSMA, Doctor Hall has been a consultant in medicine at the University of Missouri School of Medicine and a former lecturer in the Medical History Department at the University of Kansas. Copies of *Medicine on the Santa Fe Trail* can be obtained for $12.50 p.p. per copy by writing to *Friends of Arrow Rock,* P.O. Box 13, Arrow Rock, Mo. 65320. Friends of Arrow Rock will net $12.00 per copy. (See Book Review, page 133.)

Jerome R. Davis, Dean of the Academy of Concept Engineers, has announced that the Degree of Doctor of Concept Engineering has been conferred upon **Mr. Edgar J. Mothershead** of Creve Coeur, Executive Secretary of the St. Louis County Medical Society. The degree, given in recognition of achievements in the field of human communications and human understanding, is one of the rarest degrees to be conferred by any institution and, to date, has been given to few Americans. Dean Davis pointed out that Mr. Mothershead was selected for his contributions to communications and understanding after a long study of his achievements in the fields of his activities. Others to receive the degree this year are *Mr. Oakley French* of Creve Coeur, *J. Edgar Hoover, S. I. Hayakawa* and *General Omar Bradley.*

Dr. Lucius S. Shumate, Reeds Spring, was awarded a pin by the Illustrious Potentate James T. Brown of the Abou Ben Adhem Shrine Temple in Springfield on Dec. 4, 1971 for his faithfulness to the Shrine for the past 50 years. Doctor Shumate has practiced in Reeds Spring for the past 69 years and celebrated his 92nd birthday recently.

Dr. Carleton H. Lee of St. Joseph has received the Jonathan Forman award for his contribution to medicine in the field of allergy and ecology. The award was presented personally by **Dr. Jonathan Forman** of Cincinnati at a seminar conducted at the Brown Palace Hotel in Denver in December by the Society for Clinical Ecology.

Dr. Frederick J. McCoy has been elected president of the Kansas City Southwest Clinical Society. He succeeds **Dr. Paul W. Meyer. Dr. Robert S. Mosser** was chosen as president-elect of the Society.

Dr. Robert W. Tichenor, St. Louis, is the new president of the St. Louis Academy of Family Physicians. He succeeds **Dr. William M. Komanetsky.** Other newly-elected officers are **Drs. E. C. Kienzle,** president-elect; **Joseph J. Lauber,** vice-president; **Arturo C. Montes,** secretary; and **Porfirio M. Tiongson,** treasurer.

Dr. Lynn M. Garner, Jefferson City, was presented a 40-year service award and diamond lapel pin on Dec. 16, 1971 in recognition of his four decades with the Missouri Division of Health. **Gov. Warren E. Hearnes** made the presentation to Doctor Garner who is the first person ever to have worked 40 years for the State Division of Health. Doctor Garner is now director of the Division's local health services. Present at the ceremony in the Governor's office were **Dr. Herbert Domke**, acting Director of the Missouri Division of Health; **Mrs. Garner**; the Garner's son, Royal, who is in the general practice of medicine in Jefferson City; and their daughter, Betty, who lives on the West Coast.

Mr. Hollister S. Smith, executive secretary of the St. Louis Medical Society, is the new president of the St. Louis Chapter of the Public Relations Society of America.

Dr. Christopher K. Fotopoulos, who was elected to the North Kansas City Council in 1970, has filed as a candidate for coroner. He has filled the post the past several months as deputy coroner. A feature story in the Dec. 9, 1971 issue of *The Kansas City Star* (North Zone) discusses Doctor Fotopoulos's views and prowess in political affairs in North Kansas City and suggested the possibility of his being a candidate for mayor in 1973.

Dr. Francis X. Lieb, St. Louis, has been elected Missouri Chapter Chairman of the American Academy of Pediatrics. The Chapter in Missouri carries out the objectives of the AAP at both state and local levels. Doctor Lieb is an assistant clinical professor of pediatrics at St. Louis University and Chairman of the Department of Pediatrics at St. John's Mercy Hospital.

On January 1, **Dr. Ben Koon** of Bolivar embarked upon a month-long "residency" at the Presbyterian Evangelico Hospital of Rio Verde in the Brazilian highlands, where he will work with Brazilian doctors to learn their day-to-day routines and problems. Doctor Koon is making the trip as part of a special program which is under the auspices of the Direct Relief Foundation, an organization similar to CARE, but which sponsors medical personnel and medical supplies. Rio Verde is 100 miles by dirt road to the nearest airfield and has no telephone, telegraph or cable communication with the outside world. The only communication system is a local telephone network. Doctor Koon's stated goal is to broaden his medical knowledge as well as his knowledge of fellow world citizens in the country of Brazil.

Dr. Henry C. Willumsen has been elected as the third medical director of the Thompson-Brumm-Knepper Clinic in St. Joseph. He succeeds **Dr. F. Gregg Thompson III.** Doctor Willumsen has been associated with the clinic since Nov. 22, 1947 as head of the Obstetrics and Gynecology Section. He has served in many capacities at Sisters Hospital, Methodist Hospital and other hospitals in St. Joseph and has been active in numerous community projects and affairs for many years.

Dr. Harry S. Jonas has been installed as president of the medical-dental staff of the Independence Sanitarium and Hospital where he has been a member of the staff since 1956. Other newly-installed officers are **Dr. Wayne K. Tice**, president-elect, and **Dr. Donald Mehlisch**, secretary.

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J. JOSEPH MARR, M.D., *St. Louis*

Recent Developments in the Treatment of Infectious Diseases

Part VI. Venereal Diseases

In spite of efficacious therapy and a reasonably good understanding of the pathogenesis and epidemiology, venereal diseases have increased in incidence. This increase has occurred in all age groups, but has been especially marked in the younger segment of our society. The reasons for this increase are generally conceded to be an alteration in moral outlook among the population in general, as well as an increase in travel to many portions of the globe. In this country, lack of public education probably plays a significant role, especially in our higher-population density urban areas. A benign neglect on the part of the medical profession also has contributed to the prevalence of these diseases. This was illustrated recently by a patient, a young girl who is a product of the current drug culture, being seen for a problem related to drug abuse. In the course of our conversation, the problem of venereal disease was discussed, and one of her comments summed up the situation quite accurately:

> "Venereal disease is not a problem for you doctors because you are not really involved with it. You're up here handing out medicines and things but we're down here where the problem really exists—we never hear anything about it."

If one suppresses the urge to make the obvious retort to this observation, it does become evident that this patient has isolated one of the major problems in public health today: the relative inability of the medical profession to communicate its information to that segment of the population which most desperately needs it.

This final article in the series on infectious diseases and their treatment will be concerned with the diagnosis and therapy of syphilis and gonorrhea, since these two diseases constitute a major public health problem in the United States today. The lesser known and less frequently encountered forms of venereal disease and nonspecific urethritis will not be discussed.

Syphilis

Syphilis is a chronic infectious multisystem disease caused by *Treponema pallidum;* its transmission is almost always through venereal contact and systemic spread from the portal of entry occurs very rapidly. Despite excellent methods for the diagnosis and treatment of syphilis, the disease remains widespread. During the decade of the 1950's and early 1960's, there was a marked upsurge in infectious (primary and secondary) syphilis in this country, which reached a peak in 1965 when more than 25,000 cases were reported.[1] The number of reported cases underwent decline until 1970 and then began to rise again.[2] The true incidence of syphilis, doubtless, is much higher than that which is reported. For example, a questionnaire sent to more than 200,000 practicing physicians in the United States asked if they had treated and reported any venereal disease during a three-month period in 1968. Two thirds of the physicians responded. The results indicated that although private physicians treat more than 80% of all cases of infectious syphilis, only 12% of these cases are reported to public health authorities. The authors of this questionnaire, using this data, were able to calculate a true annual incidence of infectious syphilis for 1968 of 75,000 cases or four times the reported number.[3] Syphilis remains the third most commonly reported infectious disease in the United States, and in 1970, there were an estimated 200,000 new cases. Despite the common occurrence of this disease, the average practicing physician sees less than one case of infectious syphilis per year and, therefore, might feel somewhat reluctant to cope with the problem when it does arise.

Epidemiology

This disease is most prevalent in young adults, with 62% of cases occurring in persons between the ages 15 and 25. It is primarily a disease of large urban centers. Propagation is facilitated by the properties of the agent, by its mode of transmission and by social and environmental factors. The pattern of promiscuity and of heterosexual and homosexual relations has altered so that in urban areas, about 25% to 30% of all males with syphilis have acquired it through a homosexual contact. Each person with infectious syphilis has had an average of 4.6 recent contacts, two of whom were infected. This emphasizes the urgent need for reporting of infectious cases in order that contacts can be evaluated.

Natural History

Following the implantation and local multiplication of *T. pallidum* and extension of the infection to lymph nodes, treponemes spread rapidly to all tissues. Human syphilis, therefore, rapidly becomes a systemic disease. The agent itself does not multiply in the bloodstream but, on passage through the small vessels, numerous metastatic foci are set up within the body, in the skin, mucosae and nervous system. Multiplication continues for several weeks in these foci. During this time, the patient has no visible lesion or systemic symptoms; his blood, however, is infectious. From two to six weeks after the initial implantation, the primary lesion appears. This lesion may be single or multiple and usually is a nonpainful sore unless secondary infection has occurred. The lesions of secondary syphilis appear about two or three weeks after the onset of the primary lesion, and many times, in perhaps a third of the patients, the lesions of primary and secondary syphilis coexist. These involve all portions of the integument. The organisms in these metastatic foci in the integument and internal organs are killed in most instances, but sometimes they become only temporarily inactivated (latent) and give rise to further manifestations. In the untreated disease, further secondary episodes occur in about 25% of the patients within the first four years, generally within two years. With increasing duration of infection, the hematogenous "showers" of treponemes generating these contagious episodes become less frequent and involve decreasing numbers of organisms. The cutaneous lesions tend to group and localize, and they may occur solitarily until the mucocutaneous system no longer responds to the organisms with visible pathologic changes. The further course of untreated infection is documented in the data from the University Clinic in Oslo, where about 1,100 patients diagnosed as having early syphilis remained untreated under hospital conditions and were subjected to extensive follow-up evaluations. In the last investigation, 50 years after the original infection had occurred, late "benign" syphilis had occurred in 15%, cardiovascular syphilis in 10% and neurosyphilis in 6.5% of these patients.[4] Ten per cent had died as a direct consequence of their disease, and in about two thirds, latency continued indefinitely after the subsidence of the secondary attacks. The remainder of the lives of these individuals was unattended by any major physical or mental consequence of the disease.

These features of the host-parasite relationship in syphilis raise questions regarding the mechanisms involved in the pathogenesis of the lesions and their nature in both early and late disease, and they illustrate the remarkable response of the host to the invading pathogen. The reasons for the persistence of these organisms, despite an apparently adequate immunologic response, remain one of the major unanswered questions of infectious disease research today.

Immunology

The immune response of the host is signaled by the modification of the natural course of syphilis. The waning treponemia, the decrease in demonstrable treponemes in late lesions and the presence of presumed resistance to superinfection all indicate that the immune response is significant in bringing about cure or suppression of the disease. However, knowledge is meagre or even absent regarding the effector mechanisms in the host responses and the role of humoral and cell-mediated immunity in the natural history of this disease. Despite this, the serologic diagnosis of syphilis has become increasingly sophisticated and represents a major clinical and public health tool for recognition and control of this disease. The various serologic tests devolve directly from the antibody response mustered by the host. These antibodies, although multiple, are of two main types, as follows:

a. Nonspecific antibodies (reagins), which develop early after infection (about five weeks) and are directed against lipid antigens of the treponemes or against a lipid antigen that results from the interaction of host and parasite. Tests for reagins are best referred to as nontreponemal tests but are often described as serologic tests for syphilis (STS). Since the cardiolipin-lecithin antigens used in the nontreponemal tests are found in a number of normal tissues, it is not surprising that these tests are sometimes positive even though the patient does not have syphilis. The reaginic antibody declines as the disease moves toward latency and may fall below detectable levels in late disease. It is affected considerably by therapy in the early phase of syphilis so that a rising titer is a useful gauge of disease activity although of limited value as an indicator of immunity. There is no evidence that reagin has a protective role in the host. Its pathogenic significance is unknown and it is presumed to be an autoantibody formed in response to small amounts of cardiolipin "leaking" from the host cell in the pathologic process.[5]

b. Specific antitreponemal antibodies, which are measured by a variety of treponemal tests. These use one of a variety of preparations of the treponeme itself as the antigen, and a positive test is usually quite specific for past or present infection. Of the treponemal antibodies, the immobilizing antibody appears to be the most important. Agglutinating treponemal antibodies also appear. These specific antibodies appear late, two to three months after infection, but can persist for life as an indicator of infection. The development of these antibodies generally reflects the acquisition of true host resistance, although the evidence is somewhat equivocal that they have a protective role.

As in most infections, the principal antibodies in syphilis belong to immunoglobulins of the IgM class or IgG class. Antibody demonstrated by reagin tests may belong to either class; IgM is produced early in the infection and IgG appears later. The immobilizing antibody is always IgG. IgG antibodies can pass the placenta, in contrast to IgM. Therefore, the presence of IgM in the serum of a newborn suggests local formation of antibodies and active prenatal infection. The presence of IgG antibodies in postnatal serum is indicative of infection in the mother. IgG also passes the blood-brain barrier when the meninges are inflamed and is the reason why serodiagnostic tests that mainly identify IgG antibody are preferred in examining the cerebrospinal fluid.

Cell-mediated immunity manifests itself as a delayed hypersensitivity, demonstrable by the response to intradermally injected antigen after 12 to 48 hours. Although knowledge is limited at this time, cell-mediated immunity does not appear to play a major role during the secondary eruptions of syphilis.[6] However, it is believed to be operative in gummatous lesions.

Immunopathologic mechanisms causing tissue damage are little known in syphilis. Multiple humoral antibodies circulate in all phases of the disease, antigen is present and antigen-antibody complexes may have some pathogenic significance although a direct cytotoxic effect on host cells has not been established. These mechanisms have been suggested in a few manifestations engendered by syphilis, particularly paroxysmal cold hemoglobinuria and membranous glomeru-

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Special Series

The final article in this series deals with the increasing incidence of venereal diseases and current recommendations regarding therapy and includes a discussion of a recently-introduced antibiotic to be used in the treatment of gonorrhea.

Doctor Marr is Assistant Professor in the Department of Internal Medicine, Washington University School of Medicine and is with the University's Unit I Medical Service at St. Louis City Hospital.

lonephritis (syphilitic nephrosis). At present, the clinical and laboratory findings only illustrate the capacity of immunocompetent cell systems to react to antigenic stimuli in the early phase of syphilis and to generate protection against further metastatic spread and superinfection with the same pathogen. The human host can contain the infection during latency by establishing an equilibrium between the treponemes and the immune forces as evidenced by the relatively infrequent disturbance of this equilibrium which gives rise to the occurrence of late symptomatic manifestations.

Serologic tests for syphilis. The nontreponemal tests are the most widely used. They are of two general types: flocculation and complement fixation. The Venereal Disease Research Laboratory (VDRL) slide test is the most commonly-used flocculation test and the Kolmer the most common complement-fixation test employed today. These are easily performed and quantitated, are inexpensive and remain the standard tests for screening purposes. They also are used in following the serologic response to treatment since the titer declines when the disease is eradicated much more rapidly than does the FTA-ABS titer (vide infra).[6, 7] A difficulty with the reagin tests is that they are not always specific for syphilis. These false-positive reactions are not uncommon. The incidence of false-positive reactions varies from 20% in the study of Fiumara[8] to about 5% in the series presented by Moore and Mohr.[9] Most false-positive tests have a titer of 1:1 to 1:4. Most acute false-positive reactions occur after a variety of infections or immunizations and are generally of little importance. Approximately one fourth of the chronic reactors have serious underlying disease, usually systemic lupus erythematosus or a related connective-tissue disease. Common clinical situations which have been confirmed as causes of acute false-positive reactions are smallpox vaccinations, atypical pneumonia and narcotic addiction (this may approximate 20%-25%[10]). Aging is another common cause of chronic false-positive VDRL tests, for example, 1.7% of 10,000 men of ages 55-60 and 9%-10% of patients who were 70-89 years of age showed a positive VDRL.[11, 12] These reactions in older persons are generally of a very low titer and associated with increased total globulins, antinuclear antibodies and rheumatoid factor.

Since the VDRL and related nontreponemal tests occasionally are falsely positive, a number of methods have been devised to test for antibodies which are specific for syphilis. The first treponemal test, *T. pallidum* immobilization test (TPI), measures the ability of antibody and complement to immobilize a suspension of living treponemes. This test is expensive and is performed in only a few laboratories in this country. The presence of antibiotics in a serum specimen will invalidate the test since the antibiotic will also inactivate motile treponemes. Reactivity to the TPI test develops slowly: two thirds of patients with primary and one third of those with secondary syphilis have a negative test.[13] Another test is the Reiter-protein complement-fixation test (RPCF). This is cheaper and more easily performed than the former, but it has fallen out of use because it is reactive in no more than half of late syphilis.

The most important treponemal test has resulted from the application of immunofluorescent techniques. The fluorescent treponemal antibody (FTA) tests employ a strain of *T. pallidum* on a glass slide as the antigen to which a patient's serum is added. Antibody, which then attaches to the treponemes, is detected by the addition of fluorescein labelled anti-human gamma globulin and visualization by fluorescent microscopy. This test has undergone a number of modifications and is now carried out using absorbed serum, the fluorescent treponemal antibody absorption test (FTA-ABS). A 1:5 dilution of the patient's serum is absorbed with an extract of a culture of the nonpathogenic Reiter strain of treponeme in order to remove group antibody directed against antigens which are common to *T. pallidum*, the Reiter strain and other nonpathogenic oral and genital treponemes that are normal saprophytes in man.[14]

The present FTA-ABS test appears to have the best features of all the versions, being reactive even in the primary stage in most cases of syphilis and, so far, having been false-positive only in rare occasions. In these latter instances, the reaction is not truly a false-positive since the staining pattern is quite different from that seen with a normally reactive serum. The FTA-ABS test for syphilis has replaced the TPI and is a standard treponemal test in most state health laboratories.

Comparative reactivity of tests. The comparative values of the available tests for syphilis are listed in Table 1. The relatively greater sensitivity of the FTA-ABS technique is evident. It becomes reactive first in early syphilis and remains reactive for many years in old or treated syphilis. A reactive FTA-ABS test, thus, is a good indication that the patient has had syphilis but does not indicate clinical activity or necessity

TABLE 1

REACTIVITY OF SEROLOGIC TESTS FOR SYPHILIS AT VARIOUS CLINICAL STAGES

Classification	Number	Per Cent Reactive FTA-ABS	TPI	VDRL
Primary	191	85	56	78
Secondary	270	99	94	97
Late	117	95	92	77
Latent	954	95	94	74
Normal	384	1	0	0

Data adapted from Deacon *et al*[38] and Sparling.[39]

for treatment. Although the VDRL titer rises somewhat more slowly in early disease, its more rapid fall after treatment makes it the best test for following the response to treatment.[7] It is important to note that since the VDRL test is nonreactive in as many as a third of the cases of late syphilis, it is clearly necessary to perform the more sensitive FTA-ABS test in any patient in whom there is a clinical suspicion of late syphilis of the central nervous or cardiovascular systems.

Serology in congenital syphilis. The diagnosis of congenital syphilis is not difficult when the infant has the typical clinical signs of rhinitis, rash, anemia, hepatosplenomegaly, jaundice or osteochondritis, especially if dark-field positive lesions are present. However, diagnosis becomes much more difficult when an apparently normal neonate is serologically positive; this may be due either to passive transfer of maternal antibody or to active infection. When confronted with this problem, the physician may do a VDRL antibody titer on the infant using the infant's serum; the titer of passively transferred antibody in the infant serum is usually not greater than the titer in the mother's serum and generally declines rather rapidly during the first three months of life. The situation may be complicated, however, by the fact that the mother who acquires syphilis late in pregnancy may give birth to an infant with a negative serologic test for syphilis yet one who develops clinically manifest syphilis at about one to two months of age. In the former situation, the physician either must delay treatment until he has observed serial decreases in the antibody titer or administer therapy to a number of nonsyphilitic infants. In the latter situation, the physician may not treat a number of infants with negative VDRL tests who, in fact, are incubating the disease.

Because of the above quandaries, there has been much interest generated by the development of a more sensitive and specific test for congenital syphilis. It is now known that the earliest antibody response of an individual is found in the IgM fraction of the immune globulins and only later do IgG globulins begin to increase. Under normal conditions, only IgG is transferred across the placenta so that the presence of elevated amounts of IgM in umbilical cord or fetal blood are well correlated with active fetal infection.[15] Total serum IgM is often elevated in congenital syphilis and may actually precede the onset of clinical disease.[16] FTA-ABS tests have been modified to use fluorescein-labeled antihuman IgM to detect specific antitreponemal IgM antibodies. The sensitivity of this IgM FTA-ABS test in congenital syphilis has been well documented.[17] Although Alford *et al* have found that none of 66 infants with known passively transferred maternal VDRL antibody had a positive IgM-FTA-ABS, some French investigators have found that ten of 40 infants with passively transferred maternal antibodies had a positive IgM-FTA-ABS test.[18] It is not clear from this latter report that the technical aspects of the test were as carefully controlled as in the former. Nevertheless, since some question remains, the IgM-FTA-ABS test is a very promising but still experimental test for congenital syphilis.

Treatment. The following are the current recommendations of the United States Public Health Service for the treatment of syphilis:[19]

a. Primary and secondary syphilis and case contacts: 2.4 million units of benzathine penicillin in two injections at a single visit.

b. Latent syphilis (early and late): if no spinal fluid examination is performed, the patient should be treated as though he has tertiary syphilis (see below). If the spinal fluid is not reactive, 2.4 million units of benzathine penicillin at a single visit will be sufficient.

c. Tertiary syphilis and latent syphilis with a positive spinal fluid serology: 2.4 million units of benzathine penicillin initially, then 2.4 million units each week for the next three weeks. The total dose is 9.6 million units over a 28-day period.

d. Syphilis in pregnancy: treated as above, depending upon the stage, and during subsequent pregnancies, patients are always retreated if there is any doubt regarding the adequacy of previous therapy. The newborn child, of course, is followed clinically and serologically for evidence of congenital syphilis.

e. Patients allergic to penicillin: should be given tetracycline in a total dose of 30 gm administered over ten to 15 days. This is approximately as effective as penicillin. In the treatment of late syphilis, tetracycline has not been as extensively evaluated, but it is recommended that a total dose of 60 gm-80 gm be administered.[20] Although the potential dangers from the use of tetracycline during pregnancy are small, erythromycin is the preferred drug in treating the pregnant patient with syphilis. It should be given as 500 mg every six hours for a full 20 days.

Persisting Treponemes in Seronegative Syphilis

Physicians have long been comforted by the knowledge that penicillin, when properly administered, is an efficacious therapy for syphilis. Information has now begun to appear in the literature which may challenge this belief and raise new questions about the host-parasite relationship in late syphilis. The first apparent documentation of persistence of pathogenic *T. pallidum* in man after adequate penicillin therapy was by Collart *et al.*[21] They removed lymph nodes from five patients with late syphilis and transferred them to normal rabbits. In two of the recipient rabbits, dark-field-positive testicular lesions developed. A group in Miami has demonstrated spiral organisms in the aqueous humor, cerebrospinal fluid, brain and other tissues of several patients who had clinical evidence for nervous system or ocular syphilis, many of whom had negative serologic tests.[22, 23]

In most cases, the organisms were seen by dark field or immunofluorescent microscopy; in only a few was infection successfully transferred to animals. The most impressive report was of three patients who had clinical evidence of syphilis of the eye or tertiary syphilis involving the aorta, spinal cord or liver, but all of whom had negative or equivocal serologic tests for syphilis.[23] Animals inoculated with cerebrospinal fluid and extracts of these tissues developed dark field positive lesions. It should be emphasized that only those reports which contain successful animal infectivity experiments should be given serious consideration since it has recently been demonstrated by this same group that falsely positive immunofluorescent stains can be produced at etch marks and water marks on the glass slides used for serologic tests.[24]

The picture that emerges is not entirely clear, but it does seem reasonable to conclude that there has been a small number of isolations of *T. pallidum* documented by positive animal transfer from treated patients, particularly those with late neurosyphilis or ocular syphilis. Some of these patients had no serologic evidence for syphilis, including a negative FTA-ABS test. Whether or not these individuals have some defect in their immune system, particularly the cellular immune system, is not known. These studies do emphasize the fact that late syphilis can occur even if all serologic tests are negative. It does not seem indicated, however, to recommend a general change in the amount of penicillin used to treat late syphilis, since even very large amounts have not eradicated treponemes from many individuals. This is particularly true in symptomatic neurosyphilis when progression of the disease is relatively common despite antibiotic therapy. When one considers the low serum levels of penicillin achieved with benzathine penicillin and the poor penetration of penicillin into the uninflammed eye and cerebrospinal fluid, it should not be too surprising that spirochetes can be isolated from the eyes and spinal fluid of a small number of treated patients with late syphilis. These cases may simply reflect too little of the drug given too late in the disease and not necessarily the development of penicillin-resistant mutants of *T. pallidum*. The best answer to the problem of the treatment of late syphilis, therefore, remains the proper treatment of the disease in its earliest stages.

GONORRHEA

Gonorrhea is an infection of the mucous membrane of the urethra and genital tract caused by *Neisseria gonorrhoeae*. Infection is almost always the result of sexual contact, and following invasion of the genitourinary tract, organisms may spread to extragenital sites to cause arthritis, endocarditis and meningitis. Gonorrhea is the most commonly reported communicable disease in this country with an estimated 2 million new cases occurring in 1970. The number of new cases appears to be increasing at a rate of 10%-15% per year.[25] There are several factors inherent in the nature of gonorrhea which prevent control: its short incubation period, the absence of natural or acquired resistance, the large reservoir of asymptomatic female carriers and the more lax moral standards in this country. Of lesser importance is the fact that many strains of *N. gonorrhea* are decreasingly sensitive to penicillin.

Probably the most important obstacle in the control of gonorrhea is the asymptomatic female carrier. A high percentage of women are completely symptom free and are unaware that they are infected. These carriers provide the reservoir that serves to perpetuate the infection within the population. The need for efficient methods to diagnose the asymptomatic female carrier has given rise to several cooperative programs sponsored by the Public Health Service to improve diagnostic techniques. The problem of the asymptomatic female carrier is illustrated by a study carried out in an urban hospital in Brooklyn, N. Y. where 875 consecutive patients were examined for gonorrhea with smears and cultures from the urethra, cervix and the anal canal. Seventy-two cases of gonorrhea were proven, giving an infection rate of 8.2%.[26]

Clinical Manifestations

Gonorrhea in the Male. Although *N. gonorrhoeae* is unable to penetrate the skin, penetration and infection of the mucosa occurs readily. In men, the urethra is attacked first, resulting in purulent urethritis and involvement of urethral glands. The incubation period is two to eight days. There is a sudden onset of dysuria, urgency and frequency associated with mucoid urethral discharge. Gonococcal urethritis usually does not cause fever, but direct spread of infection may result in prostatitis, epididymitis or seminal vesiculitis. These are frequently associated with fever. Acute urinary retention may result from prostatitis. Gonococcal proctitis in the male is almost always the result of rectal intercourse. Untreated gonorrhea subsides over a period of weeks, but gonococci may persist, usually in the prostate. Urethral stricture is a common sequela of untreated urethritis, especially after recurrent attacks. Epididymitis can result in sterility.

Gonorrhea in the Female. In the female, urethritis is mild and transient, although Bartholin's and Skene's glands and glands of the cervix may become infected. A contiguous spread of infection can result in salpingitis or proctitis. Gonococcal salpingitis is generally bilateral and may cause pyosalpinx and formation of tubo-ovarian abscess. This tends to heal with fibrosis and adhesions that may produce obstruction and sterility. In women, the disease may begin with dysuria, urgency and frequency after an incubation period of two to eight days. The urethritis is frequently of short duration and often is quite mild. Ascent of infection to the fallopian tubes usually occurs during or just after menstruation. Dissemination of gonococcal infection frequently occurs at the same time, presumably because the number of organisms shed through the cervix is maximal during menstruation.[27] Although endometrial infection occurs when gonococci invade the fallopian tubes, it is not serious and subsides promptly. The vagina usually does not become infected in adults, probably because of the presence of stratified squamous epithelium with many layers of cells and no glands.

Asymptomatic Female Carriers. One of the important reasons for the continuing rise in the incidence of gonorrhea in this country is the difficulty of identifying the women with unsuspected or asymptomatic gonorrhea. Not only do they contribute to the perpetuation of the infection in the population, but they also are candidates for the more destructive later complications of the disease. There are a number of historical factors which have led to the conclusion that many females are asymptomatic carriers of this disease: the ratio of men to women in reported cases is about 8:1, 80% of women known to be infected are asymptomatic; surveys of female populations, such as those found in obstetric clinics, have indicated that *N. gonorrhoeae* can be cultured in about 5%-10% of patients. The percent of positive cultures will vary somewhat with the method used, the number of cultures taken and the population studied. A recent publication of a Public Health Service gonorrhea screening survey indicated that of 143,942 tests, the percent of positive cultures varied from 32% in venereal disease clinics to 6% in public hospital outpatient clinics, 6% in student health centers, 5% in private hospital outpatient clinics to 2% in private physician's clinics.[28] The data from St. Louis, Mo. which were incorporated into the survey indicate that the overall incidence of gonorrhea is 6.5% in females in the inner city and 2% in the suburbs.[29] These values represent a rather wide range since they are derived from all females who appeared at inner city or surburban private clinics. If one takes only the female population of 15-25 years of age, the incidence rises to 11% in the city. Comparable age specific data are not available from the suburban practices, but the incidence should be higher in this group as well. The studies in St. Louis identify the groups at greatest risk as young, Negro, single females. In the extreme instance, a young, single, pregnant, indigent Negro woman in St. Louis has a 27% chance of harboring *N. gonorrhoeae.* It should be noted that when white female populations are similarly matched for age, pregnancy and economic status, the incidence of asymptomatic gonorrhea is the same.[25]

Diagnosis of Gonorrhea

The original technique to demonstrate gonococci, i.e. microscopic examination of stained exudates for gram-negative diplococci within polymorphonuclear leucocytes, continues to provide an easy and sensitive method to detect gonococci in men with urethral discharges. In women, however, an examination of smears of cervical or urethral exudates is far too insensitive, even in the best of hands, and is only used as an adjunct to a cervical culture. In both sexes, a negative smear does not exclude gonorrhea, and cultures should always be performed before nongonococcal urethritis or cervicitis is considered. Likewise, a negative smear is an inadequate test for cure after antibiotic therapy. Occasionally, a smear will be positive, but on culture, no organisms are grown. This is frequently due to ineffective culture technique, but the possibility of a false positive smear should be considered.

Garson and Thayer[30] found saprophytic *Neisseria* in 3.4% of women not infected with gonorrhea. Since direct smears are relatively insensitive and the processing of cultures is sometimes difficult, a cooperative study was undertaken to determine the effectiveness of the fluorescent antibody staining technique.[31] This was an extension of the 1959 study of Deacon and coworkers who found that successful identification of *N. gonorrhoeae* by fluorescent-antibody methods was practical.[32]

The study of Lucas *et al*[31] was carried out nationwide and showed that when the fluorescent antibody technique was applied to direct smears of exudates, it lacked the necessary sensitivity. However, when the delayed fluorescent antibody method was used, results improved considerably. The delayed fluorescent antibody method consists of (1) direct inoculation of a culture slant, (2) incubation under carbon dioxide and (3) fluorescent antibody staining of a smear made from the slant. The increase in the number of gonococci during the incubation phase improves the sensitivity and yields results comparable to direct cultures with, however, a substantial saving of time. However, the method depends upon the production of high-titer, specific conjugates, which is a difficult process which requires careful standardization. In addition, other bacteria may stain with specific antigonococcal antisera unless the antiserum is absorbed with these organisms prior to its use.[33]

A disadvantage of this technique is that the delayed fluorescent antibody test is unsatisfactory as a criteria of cure because gonococci killed by therapy continue to stain. In the experience of Deacon *et al*,[32] the delayed method of antibody identification was not significantly superior to the conventional culture for the detection of the gonococcus in female contacts of patients with gonorrhea. Its chief advantage was the decreased time necessary to identify the gonococcus—approximately 20 hours as compared with as long as ten days for cultures that required purification measures before definitive identification could be made.

The results of these investigations may be summarized as follows:

For the primary diagnosis of gonorrhea in the woman, the Thayer-Martin culture and the delayed fluorescent-antibody technique are of equal efficiency if multiple sites are examined. However, if examinations are limited to specimens from only one site, culture will be significantly more productive than the delayed method in the examination of specimens from the cervix and especially so in examination of specimens from the vagina.

Techniques of Culture

The major problem in culturing the gonococcus was resolved in 1964 by the development of a sensitive medium for the isolation of the pathogenic *Neisseria* by Thayer and Martin.[34] Improved Thayer-Martin (T-M) medium incorporates vancomycin, colistimethate and nystatin. This combination of antibiotics reduces the overgrowth by contaminating organisms and improves the specificity of the presumptive identification of *N. gonorrhoeae*. The inhibition of the saprophytic *Neisseria* is nearly complete, and *Mima polymorpha* var. *oxidans*, another organism that might be mistaken for the gonococcus, is also inhibited. This medium is sufficiently good so that if a culture is obtained from the female urogenital region, only three criteria are needed to identify the gonococcus; first, growth on T-M medium; second, a positive oxidase reaction; and third, the typical gram-negative diplococcal morphology. Confirmatory tests, such as sugar fermentation or fluorescent antibody staining, need not be done.

In order to obtain a high yield of positive cultures, fresh medium should be inoculated at the time the patient is examined. The use of transport media and nonselective agar will yield fewer positive cultures. There is a transport medium available, Transgrow, designed specifically for pathogenic *Neisseria* which appears to be very reliable. Nevertheless, direct inoculation of T-M selective medium is the preferred method. In men, one should culture all urethral discharges in which a gram stain is not conclusively positive. In women, the specific sites available for culture become of definite significance since the percent of positive cultures varies with the site used. If one examines a group of asymptomatic female carriers, proven by positive culture, and determines which locations are most likely to yield a positive result, the following will occur: the cervix will be positive in 94%, the rectum will be positive in 49%, the urethra and vagina will each be positive in about 78%. When these data are recombined in order to show which culture site combination might be used to give the highest yield on a single visit, the following emerge (Table 2): cervix and rectum yield 100% positive, cervix and urethra or vagina yield about 94%. Other combinations yield a significantly lower number of positive cultures.[35] Therefore, when one examines a woman for the presence of asymptomatic gonorrhea, one should culture both the cervix and the anal canal in order to maximize the possibility for a positive cultural result.

TABLE 2

RECOVERY OF *N. GONORRHOEAE* WHEN TWO SITES ARE CULTURED

Culture Site Combination	*Per Cent Positive*
Cervix and rectum	100
Cervix and urethra	94
Cervix and vagina	94
Rectum and urethra	86
Rectum and vagina	88
Urethra and vagina	85

The technique for culture is relatively simple: a sterile cotton-tipped applicator is used to swab the endocervix and is immediately rolled onto T-M medium (or chocolate agar, if the former is not available) and placed in a candle jar at room temperature. The anal canal is cultured in the same manner, although if fecal material is obtained on the end of the swab, it should be discarded and a second swab taken. The cultures should be incubated as soon as possible since *Neisseria* are relatively thermosensitive and will not grow at temperatures markedly below 37 C.

Treatment of Gonorrhea

Despite the many variations and combinations of antibiotics which have been used for the treatment of gonorrhea, penicillin remains the drug of choice despite the problem of slowly developing resistance of the organism to the drug. During the decade which followed World War II, therapeutic success correlated well with *in vitro* sensitivity of gonococcal strains.[36] Increasing treatment failure has been paralleled by increasing *in vitro* antibiotic resistance,[37] and the average sensitivity of gonococcal strains obtained from treatment failures has increased from 0.1 units of penicillin/ml in 1954 to 0.5 units per ml in 1969. The principles of treatment, however, are unchanged: suboptimal doses of antibiotics are not used; low blood and tissue levels of antibiotics resulting from inadequate dosage or sustained release preparations may selectively kill the more sensitive strains and allow the more resistant strains to grow. Thus, benzathine penicillin, which is quite effective in the treatment of syphilis, is ineffective in the treatment of gonorrhea. Second, adequate duration of effective *in vivo* antibiotic activity should be provided. Probenecid may be used in conjunction with a single dose of penicillin or ampicillin to retard urinary secretion and provide higher, more sustained blood levels. Oral preparations of penicillin may not provide adequate blood levels because of variable gastrointestinal absorption. Moreover, many patients are not reliable enough to be expected to complete a full course of oral therapy. There is no evidence to indicate that combinations of antibiotics are of any value in the treatment of gonorrhea. Finally, a test of cure should be routine on all patients; this consists of follow-up cultures obtained about one week after therapy. These follow-up cultures should be obtained from both the cervix and rectum in order to maximize the possibility of a positive result.

The recommendations of the U. S. Public Health Service are as follows:

a. Uncomplicated gonorrhea:
  1. Men: procaine penicillin G, 2.4 million units in one injection.
  2. Women: procaine penicillin G, 4.8 million units in two injection sites at once.

b. Resistant gonorrhea:
Procaine penicillin G, 4.8 million units in two injection sites at one visit with the ad-

dition of probenecid, 0.5 gm at once and every six hours for one day.

c. Patients with penicillin hypersensitivity may be given tetracycline, 1.5 gm orally, followed by 0.5 gm every four hours for four days. Erythromycin 500 mg every six hours for five days may be substituted during pregnancy.

The recently introduced aminocyclitol, spectinomycin, may be of value in the treatment of resistant gonorrhea which does not respond to the above measures. This drug has no cross allergenicity with penicillin and appears to be effective against those strains of *N. gonorrhoeae* which are resistant to other antibiotics. It should be emphasized that this drug is of little value in any disease other than gonorrhea. The recommended dosage is 2 gm in a single intramuscular injection in men and 4 gm in women. It should be emphasized, however, that this drug is not a substitute for penicillin and should be used only when the gonococcus is resistant to ordinary therapy.

Epidemiology

In concluding, it should be emphasized that the physician's responsibility does not end with the diagnosis and treatment of venereal diseases. He has the obligation to report every case of venereal disease to the Public Health Department and, especially in the case of syphilis, give permission for investigation of the patient's contacts. It is recognized that this is sometimes difficult in a private office practice of medicine, but the consequences of venereal disease must be explained to the patient so that all of his or her contacts can be examined and treated. The physician's role in educating the public, particularly younger people, is of extreme importance. This may be done through active participation in community groups or through the support of legislation directed toward this same end. The General Assembly of the state of Missouri has recently passed House Bill # 73 which states that venereal disease in persons under the age of 21 years may be treated by any physician or institution without parental consent.

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Emergency Treatment of Acute Depressant Drug Overdose

The epidemic rise in drug abuse in the United States since 1967 has been accompanied by increasing numbers of patients suffering from acute drug overdose. Reporting on their experience at the Haight-Ashbury Free Medical Clinic, the authors outline a rational procedure for emergency treatment of these patients for family physicians in other areas of the country who will be faced with treating these patients. Doctor Sheppard is an Intern at the Presbyterian Hospital and Research Assistant, Haight-Ashbury Free Medical Clinic. He was a Senior Medical Student at the University of Missouri-Columbia at the time this paper was written. Doctor Gay is Director of the Medical Section and Chief of the Heroin Clinic and Doctor Smith is Founder and Director of the Haight-Ashbury Free Medical Clinic. Also, Doctor Gay is Lecturer in Toxicology (Pharmacology) and Doctor Smith is Assistant Clinical Professor of Toxicology at the University of California Medical School.

As ANYONE WHO READS the newspaper or listens to radio or TV knows, drug abuse is becoming a major medical-social problem. Because of the widespread nature of this problem, the problem of a drug overdose (OD) must be considered in the differential diagnosis of any comatose patient, particularly younger patients.

The Haight-Ashbury area in San Francisco is well known as one of the centers of the "drug culture" in the U. S.[1-3] As such, we, at the Haight-Ashbury Medical Clinic, treat, on the average, one patient with acute overdose daily. This paper is an attempt to share our experiences in the treatment of acute overdoses, in the belief that this will prove of value to the family physician as the "drug problem" reaches his area. The characteristics of our addict population have been described elsewhere.[1, 2]

The comatose patient represents the most difficult of diagnostic problems. Prompt and proper therapy is essential and, in the case of drug overdose, is often literally lifesaving.

In cases of drug overdoses, a relevant history is often unobtainable, since the patient's friends (with whom he may be "shooting up") drop him at your doorway, ring the bell and leave. In fact, this type of arrival should heighten the index of suspicion of an overdose.

When a drug overdose is suspected, the procedure we have developed has been to treat it as a heroin overdose until proven otherwise. We do this partially because in our area, 95% of overdoses will be heroin while the other 5% will be barbiturates or mixed heroin—"Barbs." This ratio, of course, will vary from area to area, but the procedure will remain applicable to either type of overdose.

EMERGENCY THERAPY

The mark of the inexperienced physician is to waste time looking for pupil size or elaborate equipment or both. The key to saving these patients is speed and oxygen. If the patient is blue, the size of his pupils is relatively unimportant. Also, because of the many chemicals mixed with heroin (so aptly called "junk"), the pupil size may vary widely. Since the major toxic effect of these drugs is respiratory depression,[4] this is the symptom to attack, as follows:

1. Establish an Airway.[5]

a. *Clean mouth* of mucus, blood or vomitus (or gum or tobacco), if necessary.

b. *Tip head* slightly back[6] (patient in supine position), hold jaw up and out (grasp jaw at angles of mandible and at point of chin), draw the head into the "sniffing position" (*not* hyperextended) and pull the tongue forward to be sure it isn't occluding the posterior oropharynx (a flaccid tongue is just like a quarter pound of loose hamburg-er). Oropharyngeal reflexes will probably be absent so insert an oropharyngeal airway if one is readily available. A simple expedient is just to hold the tongue forward with your fingers.

c. *Breathe for the patient* if his respirations are depressed,[5, 7] mouth to mouth or mouth to nose. Be sure that his chest (not stomach) is expanding and that air is entering his lungs. Use a stethoscope to listen for breath sounds. Use an "ambu" bag if one is handy, but get air into him and "pink him up." *Do not stop* to look for endotracheal equipment, since this is a *true emergency* and such hesitations can spell disaster. Get air into him immediately. If room air is 20% oxygen, your mouth-to-mouth respiration will get at least 15% oxygen into him, and you'll bring him back. Endotracheal intubation should be attempted *only* by a trained anesthesiologist or surgeon and then *only* after the patient is properly oxygenated.

2. *Assess the Cardiovascular System.*

a. *Check the pulse* (for rate and rhythm). Check precordial, femoral, temporal or radial pulses. If the patient arrives with a heart beat, you should save him 100% of the time. *Do not* be lulled into complacency by the strong full pulse of hypoxia. This may be premonitory to terminal arrhythmia and cessation of heartbeat.

b. Begin external cardiac massage if necessary[5, 8] (palms of hands over lower sternum, depressed firmly 20 times per minute). Administer intracardiac epinephrine if necessary (long needle, 1 cc to 1:1000 Ampule, dilute to 10 cc, inject 5 cc intracardiac, place needle just to left of sternum in fourth to fifth interspace).

3. *Continue to Treat as Though It Were a Heroin Overdose.*

At this point, if the problem is a drug overdose, you have "saved" the patient. As long as you "breathe" for the patient and the patient has a good cardiovascular function, he will not die.

Do not waste your time looking for needle marks. Their presence does not differentiate the type of drug used and their absence does not rule out an overdose of barbiturates, etc.

a. Give levallorphan tartrate (Lorfan®) 1 cc (1 cc/1 mg) or N-allyl morphine (Nalline®), 1 cc (1 cc/5 mg)[9] intravenously (IV), if possible. (IV works in seconds while intramuscular (IM) administration may take 20 minutes or so to act.) Remember that many junkies will have "collapsed" veins. The external jugular or the femoral will often be available, however. The levallorphan tartrate or N-allyl is a *diagnostic test for narcotics overdose*. It will reverse the depressant effects of heroin and *will not harm the situation* if it isn't a heroin overdose. If the patient doesn't respond immediately, suspect something else. You may repeat the dosage in 20 minutes. Any further dosage after this, however, may contribute to depression.

Unpublished data by Dole and Foldes[10] indicates that Naloxone will not contribute to respiratory depression. This would make it the drug of choice for this situation when it becomes available.

b. Give doxapram HCL (Dopram®), 3 cc to 5 cc IV (1 cc/20 mg).[11] This is an extremely safe, *temporary* (3 min.-5 min.) nonspecific respiratory stimulant. It will probably have immediate dramatic effects, so be sure the airway is open and *don't* turn your back on the patient since he may lapse back into coma.

Note that doxapram should not be used in hypertensive patients because it may have a temporary hypertensive action, nor should it be used in patients with severe acidosis.

c. Other respiratory stimulants such as ethamivan (Emivan) may be used as a substitute for doxapram.

d. *Stay with the patient* until he is fully responsive. His recovery may be quite sudden; he may sit up, spit out the airway and ask, "Where am I?" It is necessary to observe him for at least one to two hours, however. If he has used a long acting narcotic, such as methadone, he may lapse back into coma and die a respiratory death as the narcotic antagonist (relatively short acting) wears off.

Of course, if the patient has failed to respond to the above emergency therapy in a satisfactory manner (and if adequate facilities are at hand), follow established emergency procedure. Secure a route for administering fluids intraveneously, preferably with a large bore cannula. Administer sodium bicarbonate if moderate-to-severe acidosis is suspected. Begin the administration of a glucose-electrolyte solution. Draw blood for chemistries. Search for evidence of trauma, blood loss, acute infectious process, increased intracranial pressure, etc. Transfer him to an Emergency Facility Ward at once.

e. If the patient has partially responded to your therapy but still appears to be depressed, suspect a mixed overdose of barbiturates and narcotics. In the five documented deaths from our clinic population (none of which occurred at the clinic), all were victims of a mixed overdose. Usually after having injected a short-acting barbiturate, heroin was used within a short period.

f. If longstanding drug depression is suspected, i.e., if the patient has lain unattended for several hours, suspect atelectasis and orthostatic pneumonia.[4, 12] In such cases, vigorous pulmonary therapy and aggressive antibiotic therapy are indicated. Hospitalization is necessary in such cases. In severe cases of narcotics overdose, the cardiovascular system may be so depressed that pulmonary edema may develop. Intubation or tracheostomy plus continuous positive pressure respiration may be lifesaving in such a case.

CASE HISTORIES

Case # 1. We received word via a friend that an addict was "O.D.'d" in an apartment down the street. We ran to the apartment and, on arrival, found a 23-year-old man comatose. His girl friend was giving him mouth-to-mouth resuscitation. He was pink, apneic with good pulse. He was given 1 cc of N-allyl morphine via the external juglar vein. He immediately sat up, complaining of nausea and demanding to know what we were doing there. He was taken to the clinic, observed for an hour and discharged.

Case # 2. A 50-year-old known addict was carried into the clinic by one of the clinic's volunteers who had returned home to find him comatose on the couch. The addict apparently had been lying around the house for several hours. When seen, he was apneic, cyanotic with a slow full pulse. Mouth-to-mouth resuscitation was begun with difficulty because of the large amount of secretions in the oropharynx. An endotracheal tube was inserted and breathing continued. He was given 1 cc of N-allyl morphine via the femoral vein, and a slight increase in respiratory effort was noted. He continued to be very depressed and the chest was full of rhonchi and rales. After 15 minutes, a second 1 cc of N-allyl morphine was given intraveneously. Again, a slight increase in respiration effort was noted although the endotracheal tube remained in place without discomfort and the patient was unresponsive to voice. Because of the continued depression and the feeling that the patient was certain to have orthostatic pneumonia, he was transferred to San Francisco General Hospital. He was treated there with antibiotics and was discharged after a week.

CONCLUSION

Acute drug overdose is a true medical emergency in the most dramatic sense. The practitioner who encounters it must exercise all of his "life-support-system" expertise if he is to effectively deal with it. Basically, it is an airway support problem; however, if the airway is kept open, a near 100% survival rate can be expected.

Problems contributing to drug addiction and overdose as seen in the Haight-Ashbury subculture have been as follows:

1. General malnutrition, a by-product of the "drop-out" life style.

2. "Mixed addiction" of heroin-barbiturates, heroin-alcohol, heroin-valium, heroin-meprobamates, heroin-PCP (phenylcyclohexyl piperadine, an animal tranquilizer popularized as the "peace pill").

3. The occasional influx of the "High Grade" (high percentage) heroin which gives the addict more of a "downer" trip than he suspects.

4. "Treatment" administered by the addict's friends. In the street mystique, certain remedies for OD's have gained favor among the addicts. In particular, the injection of such substances as coffee, milk (which may lead to fat emboli) or saline (table salt in tap water). In addition, such remedies as "speed" or other stimulants may be tried in an effort to awaken the addict. Only after these have failed (as well as ice cold showers, etc.) will the patient be brought to your office.

5. Changes in the "available" drugs. For example, during "operation intercept" when the supply of drugs on the street was changed from the more innocuous marihuana to "peace" pills (PCP), barbs and heroin, the drug dealer, in response, switched his merchandise to the available drugs, often without informing his customers, i.e., instead of selling marihuana, which was difficult to get, the dealer would advertise "THC" (delta-9-tetrahydro cannabinol, the active ingredient in marihuana), which, in reality, might contain anything (except actual THC) and most often contained barbiturate-like drugs or tranquilizers (Valium, Librium, PCP, etc.), resulting in adverse reactions or overdoses among his customers.

At the present time in Missouri, the major drug overdoses are not of the opiate drugs. However, if the "ripple effect" follows that which was seen earlier with psychedelics and amphetamines, Missouri physicians can expect to see increasing numbers of narcotic overdoses.

In general, as depressive drugs (heroin, barbiturates, tranquilizers) move into your community by the "ripple effect"[1, 2] from drug abuse centers such as the Haight-Ashbury, suspect *all* acute comatose patients with questionable or nonexistent histories as heroin overdose cases.

(Continued on page 119)

JOHN S. MEYER, M.D. *and*
MARY JEAN WOOD, M.D., ***St. Louis***

Amino Acid Screening of Mentally Defective Patients by High Voltage Electrophoresis

THE APPROACHES to detection of inborn errors of amino acid metabolism include specific tests (an example is the Guthrie bacterial inhibition test for increased levels of phenylalanine,) chromatography (by column, paper or thin layer) and electrophoresis. The advantage of chromatography and electrophoresis lies in their ability to measure a broad spectrum of amino acids in body fluids. The time required for analysis generally is proportional to the degree of separation of various amino acids and the precision of measurement. Paper chromatography is the method used most for comprehensive screening tests,[1-4] but thin layer chromatography[5] and high voltage electrophoresis (HVE)[6] offer greater speed. Despite widespread use of paper chromatography, we have found no published critical evaluation of its ability to detect a broad spectrum of inborn errors of amino acid metabolism. Since one-dimensional HVE achieves about the same degree of resolution of amino acids as paper chromatography, any doubts about the efficacy of paper chromatography in screening also would apply to HVE. Consequently, we paid particular attention to this question in our evaluation of HVE.

Evaluation of the method and survey of a group of patients of the Missouri Division of Mental Health has indicated to the authors that it is effective, rapid and sufficiently inexpensive to make a survey of all mentally defective patients cared for by the Division of Mental Health economically practical. Doctor Meyer is Assistant Professor of Pathology, Washington University School of Medicine and Assistant Pathologist, The Jewish Hospital of St. Louis. Doctor Wood is Instructor of Pathology, University of Missouri-Columbia School of Medicine and Director of the Clinical Pathology Laboratory, Missouri Institute of Psychiatry. This study was supported by USPH Research Grant RM-00009.

METHODS AND OBSERVATIONS

Collection, Preservation and Analysis of Specimens

We obtained specimens of blood and urine from mentally-defective patients at five hospitals and clinics of the Missouri State Division of Mental Health. The blood was collected in Vacutainers with liquid EDTA anticoagulant and the plasma was separated within a few minutes. Urine was preserved by freezing after receipt in the laboratory. Immediate freezing of urine and plasma would ensure preservation, but we could detect no deterioration of amino acids in plasma or urine during 48 hours at room temperature. Bacterial growth in urine can be suppressed by adding one drop of 10% w/v aqueous solution of thimerosal (Merthiolate, Lilly) to 10 ml of urine, and urine samples preserved in this way showed no significant loss of amino acids other than a slight loss of homocystine. Addition of merthiolate in this concentration will preserve urine adequately for amino acid screening for 48 hours.

Deproteinization of plasma is necessary prior to electrophoresis. We found alcohol-extraction modified after Pasieka[7] to be satisfactory. Sufficient 95% ethanol was added to a 0.5 ml aliquot of plasma to achieve a concentration of 79%; the mixture was centrifuged, and the precipitate was washed with two aliquots of 79% ethanol which were added to the supernatant. The extract was then evaporated to dryness under vacuum at −40 C in a Virtis 10-MR-TR drying chamber attached to a Virtis 10-145-MR-BA Freeze-Mobile. The solids were redissolved in 0.1 ml of 0.1 N HCl which resulted in a five-fold concentration of amino acids over plasma. Lipids, which otherwise interfered during electrophoresis, were removed by shaking with two successive 1 ml portions of ether. Twenty microliters of the aqueous phase was then applied to Whatman No. 3 MM chromatography paper, 73 cm × 37 cm, with a Beckman No. 32005 applicator.

Urine was diluted to contain 1.0 μg of creatinine per μl (0.5 mg or 0.1 mg creatinine per microliter for less concentrated urines), and a sufficient volume to contain 20 μg. creatinine was applied to the paper. It was possible to apply eight samples of urine or plasma extract and two samples of standard amino acid solutions to a single piece of paper.

The standard amino acid solution for plasma runs contained alanine, arginine, glutamine, glycine, leucine, lysine, phenylalanine, phosphoethanolamine, taurine, tryptophan, tyrosine and valine each in a concentration of 1 millimol per liter. The standard for urine runs differed in substitution of histidine for arginine.

Electrophoresis was carried out in a Savant Model LT 48a tank with a formic acid-glacial acetic acid-water (6:24:170 by vol) buffer of pH 2.0. The migration time was 1.5 hours at 2,000 v and approximately 150 ma. The petroleum distillate that filled the tank above the buffer was cooled to 3 C-5 C by circulating refrigerated water through coils. Following electrophoresis, the paper was dried for 20 minutes at 90 C, stained with ninhydrin and stabilized with cupric nitrate.[8]

The amino acids in plasma and urine were resolvable into 19 distinct bands the composition of which is given in Table 1. The chromogen with the ninhydrin-cupric nitrate stain was a shade of red for all compounds listed except proline and hydroxyproline, which were yellow; histidine, which was brown; and methylhistidines, which were blue.

Certain special stains, which we found necessary on occasion, are listed in Table 2. The isatin stain was done to confirm presence of excess phenylalanine and whenever an elevated level of glycine in the urine suggested Joseph's syndrome (iminoglycinuria) in which proline and hydroxyproline are excreted in excessive amounts. These latter two amino acids, which stain yellow with ninhydrin-cupric nitrate, were not detectable with ninhydrin-cupric nitrate unless they were present in exceedingly high concentrations. The Ehrlich's overstain after ninhydrin was done whenever the citrulline-containing band was unusually prominent. Specimens with un-

TABLE 1

COMPOSITION OF AMINO ACID BANDS ISOLATED BY HIGH VOLTAGE ELECTROPHORESIS AND RATE OF CATHODAL MIGRATION RELATIVE TO ALANINE

Band No.	*Composition*	$R_{alanine}$
1	Taurine	0.12
2*	Phosphoethanolamine	0.15
3	Tryptophan	0.51
4	Tyrosine	0.59
5	Phenylalanine, citrulline, cystine, aspartic acid, hydroxyproline	0.65
6	Glutamine, glutamic acid	0.70
7	Threonine, methionine, proline	0.75
8	Leucine, isoleucine, cystathionine	0.78
9	Serine, valine, homocystine	
10*	Arginosuccinic acid	0.87
11*	α-amino-*n*-butyric acid	0.91
12	Alanine	1.00
13	Glycine	1.12
14	β-amino-n-butyric acid, β-aminoisobutyric acid	1.21
15	Methylhistidines	1.22
16	Histidine, γ-aminoisobutyric acid	1.29
17	Arginine	1.33
18	β-Alanine	1.38
19	Lysine, ornithine	1.43

* These bands are not normally found in either plasma or urine.

TABLE 2

SPECIAL STAINS FOR CERTAIN AMINO ACIDS

Stain	*Amino Acids Detected*	*Reference*	*Result*
Isatin	Tyrosine, hydroxyproline, proline	Mabry & Karam, 1964	Blue
Isatin with Ehrlich's overstain	Hydroxyproline	Efron, 1964	Red-purple
Ninhydrin with Ehrlich's overstain	Citrulline	Efron, 1964	Pink
Nitroprusside and Cyanide	Cystine, homocystine	Toennies & Klob, 1951	Red
Platinochloric acid and iodide	Cystine, homocystine, and methionine	Toennies & Klob, 1951	White or pale yellow on pink background

usual patterns on one-dimensional electrophoresis were also subjected to two-dimensional separation. This was accomplished by electrophoresis after which the dried, unstained strip was sewn to the edge of a fresh piece of filter paper and chromatographed overnight in butan-1-ol-acetic acid-water (12:3:5 by vol).[7]

Following staining with ninhydrin-cupric nitrate, we determined numerical values for the various bands isolated by comparison with corresponding bands of the standard amino acid solutions. A Densicord Model 542A densitometer-integrator equipped with a 505 nm green filter was used for this purpose. The values obtained for mixed bands could not be translated into specific amino acid concentrations, but they could be used to determine normal ranges for the composite of amino acids that the band represented. When a mixed band was unusually dense, it was necessary to investigate its components by special stains and two-dimensional separation.

Recovery of amino acids added to plasma was in the range of 90%-100%. Coefficients of variation determined by replicate analysis of aliquots of plasma that were carried through the entire extraction and concentration procedure ranged from 15% to 40% for the bands present in more than trace quantities (bands 6, 7, 8, 9, 12, 13, 16, 17 and 19 in Table 1), but they were greater for the tyrosine and tryptophan bands because of the low concentration of these amino acids.

Evaluation of HVE as a Screening Technic

To evaluate the effectiveness of HVE for detection of errors of amino acid metabolism, simulated specimens were prepared by adding to plasma or urine enough of the amino acid in question to give the lowest concentrations reported in patients with the disorder. The results are indicated in Table 3. All of the 19 simulated conditions could be detected if both plasma and urine were tested, with the exception of some cases of prolinemia and hydroxyprolinemia.

Definition of Upper Limits of Normal for Plasma and Urine Amino Acids

The means and the upper limits of normal, defined as mean plus two standard deviations (SD) for plasma and urine amino acid bands in a mentally deficient population are expressed in Tables 4 and 5. For bands composed of multiple amino acids, the values refer to equivalents of the amino acid representing the band in the standard solution. We believe that these values are useful in separating normal from abnormal patterns.

Results of Screening Mentally Deficient Patients

A total of 560 mentally deficient patients was evaluated according to the criteria of normal expressed in Tables 4 and 5.

Both plasma and urine were tested in 500 patients and plasma alone was tested in 60. Five phenylketonurics were discovered. This incidence is similar to that reported in other screening studies of mentally defective patients.[1, 2, 6, 9, 10] Two of the phenylketonurics were not previously diagnosed. Another 15 patients had abnormal results which were not diagnostic. These included decreased plasma glutamine-glutamic acid in one patient, increased urinary glycine in three patients, increased urinary alanine in two patients, increased urinary alanine and glycine in one patient, increased urinary lysine and ornithine in four patients, generalized aminoaciduria in three patients and an unidentified abnormal band in one patient. Similar selective and generalized aminoacidurias have been noted in a significant proportion of mentally defective patients by Carson and Neill[1] and Andersen and Bang.[10] Whether these aminoacidurias play a role in the pathogenesis of mental deficiency is not known, and the question deserves investigation.

Total Urine Solids as Standard for Amino Acid Excretion

Evaluation of amino acid excretion in the urine is dependent on collections of 24 hour samples or on measurement of amino acids against some relatively constant constituent or property of urine. Creatinine has traditionally been used as the reference for measurement, but Jackson, Sardharwalla and Evers[11] presented evidence that total urine solids also is a practical reference. We confirmed their impression by testing variability of amino acid excretion as measured against either reference in 88 consecutive subjects. Since the coefficients of variation for the various amino acid bands were closely similar when measured against either creatinine or total solids, we conclude that the total solids reference is satisfactory for general use. However, creatinine would be a better reference when large amounts of protein or glucose are present in the urine. The advantage of total solids as a reference for measurement of amino acids is the ease of its determination by refrac-

TABLE 3

TESTS of DETECTABILITY OF VARIOUS ERRORS OF AMINO ACID METABOLISM BY ONE-DIMENSIONAL HIGH VOLTAGE ELECTROPHORESIS WITH NINHYDRIN-CUPRIC NITRATE STAIN

Condition	*Detectability*	
	IN PLASMA	IN URINE
Arginosuccinic aciduria	No	Yes
β-alaninemia	Yes	Yes
Citrullinemia	Yes	Yes
Cystinuria	No	Yes
Cystathioninuria	No	Yes
Glycinemia	Yes	Yes
Glycinuria	No	Yes
Hartnup disease	No	Yes
Histidinemia	Yes	Yes
Homocystinuria	No	Yes
Hydroxyprolinemia	No	Yes (As glycinuria. Special stain for hydroxyproline.)
Iminoglycinuria	No	Yes (As glycinuria. Special stains for proline, hydroxyproline.)
Lysinemia	Yes	Yes
Maple syrup urine disease	Yes	Yes
Ornithinemia, ammonemia and homocitrullinuria	Yes (Ornithine difficult to distinguish from lysine.)	Questionable
Phenylketonuria	Yes	Yes (May be less obvious than plasma.)
Prolinemia	Questionable	Yes (As glycinuria. Special stain for proline.)
Prolinuria	No	Yes (As glycinuria. Special stain for proline.)
Valinemia	Yes	Yes

TABLE 4

PLASMA AMINO ACID BANDS IN 418 MENTALLY DEFECTIVE PATIENTS

Composition of Band	*Comparison Standard*	*Mean, μMoles/l. as Standard Equivalents*	*Mean + 2 SD (Upper Limit of Normal)*
Tryptophan	Tryptophan	5	51
Tyrosine	Tyrosine	16	128
Phenylalanine, citrulline, cystine, aspartic acid, hydroxyproline	Phenylalanine	209	461
Glutamine, glutamic acid	Glutamine	517	919
Threonine, methionine, proline, leucine, isoleucine, cystathionine	Leucine	234	452
Serine, valine	Valine	165	419
Alanine	Alanine	214	446
Glycine	Glycine	133	289
Histidine, γ-aminoisobutyric acid, arginine	Arginine	46	148
Lysine, ornithine	Lysine	117	267

TABLE 5

URINE AMINO ACID BANDS IN 318 MENTALLY DEFECTIVE PATIENTS

Composition of Band	*Comparison Standard*	*Mean, mMoles/g Creatinine as Standard Equivalents*	*Mean + 2 SD (Upper Limit of Normal)*
Taurine	Taurine	0.44	1.54
Tryptophan	Tryptophan	0.01	0.17
Tyrosine	Tyrosine	0.01	0.19
Phenylalanine, citrulline, cystine, aspartic acid, hydroxyproline	Phenylalanine	0.13	0.91
Glutamine, glutamic acid	Glutamine	0.57	1.63
Threonine, methionine, proline, leucine, isoleucine, cystathionine	Leucine	0.08	0.38
Serine, valine, homocystine	Valine	0.11	0.37
Arginosuccinic acid	Alanine	0.00	0.00
Alanine	Alanine	0.35	1.59
Glycine	Glycine	1.49	4.11
β-aminoisobutyric acid	Alanine	0.45[*]	1.13[*]
Histidine, γ-aminoisobutyric acid, arginine	Histidine	0.57	1.91
β-alanine	Alanine	0.00	0.00
Lysine, ornithine	Lysine	0.10	0.56

[*] Zero values are eliminated from these calculations because β-aminoisobutyric aciduria is a genetic marker.

tometry, while creatinine requires a more time-consuming chemical measurement.

Discussion

HVE is an effective method for detection of inborn errors of amino acid metabolism. It has the advantage of rapidity over column chromatography and paper chromatography, and resolution is better with HVE than with paper chromatography. The equipment required for HVE is less expensive and complicated than is needed for column chromatography,[12] although the latter is the method of choice when precise measurement of amino acids is necessary to confirm abnormalities noted by other methods. Thin layer chromatography, which has recently been used as a screening method,[10] requires more time per run than HVE but achieves comparable resolution.

A single technician can screen both plasma and urine of eight patients in an eight-hour workday by HVE. Abnormalities can be investigated rapidly by using special stains on repeat electrophoretic runs. The technic permits rapid quantitation by densitometry-integration so that numerical limits of normal can be used to evaluate results. With this technic, it should be possible to examine the entire population of mentally defective patients cared for by the State of Missouri Division of Mental Health at a reasonable expense. These patients should be examined so that the inheritable errors of amino acid metabolism that cause mental deficiency can be discovered. Although the known errors account for only approximately 3% of mental defectives, they should be discovered to permit genetic counselling of relatives and to effect early diagnosis and therapy of new cases occurring among relatives. The cost per patient of testing plasma and urine in a survey by high voltage electrophoresis would be less than $10. Suppose that at least one case of mental deficiency could be prevented for each 500 patients tested, as a result of defining families with genetic defects. This seems likely in view of the incidences of various treatable amino acid metabolic errors, even with the consideration that most examples of phenylketonuria will be discovered by routine neonatal testing. The case-finding cost for one prevention of mental deficiency would then be less than $5,000. This figure is comparable to the cost of maintaining a mentally defective patient in an institution for only one or two years. It would justify a continuing survey program on a strictly economic basis.

Summary

Evaluation of one-direction high voltage electrophoresis with quantitation by densitometry-

(Continued on page 119)

Special X-ray Exhibit

SIDNEY RUBIN, M.D., RODGER LAMBIE, M.D. *and*
EDWIN HERMAN, M.D., *Kansas City**

Radiologic Problem Case

A 57-YEAR-OLD WHITE MAN complained of weakness, gnawing abdominal pain and weight loss. The patient noted a 30 lb weight loss incurred over a ten-month period. Following an examination as an outpatient, the patient was admitted to the hospital on Feb. 23, 1971 for an operation.

Past History: The patient had a duodenal ulcer, diagnosed nine years prior to his present admission. Excluding the ulcer history and a renal calculus eight years previously, he had been in excellent health.

Physical Diagnosis: All systems were essentially normal except for a palpable, slightly enlarged, nontender liver.

Laboratory Data: Laboratory studies disclosed the following values: hemoglobin 15.1 gm/100 cc; hematocrit reading, 42%. White blood cells were slightly elevated—11,300 with the following differential: polys, 57%; stabs, 2%; eosinophils, 2%; basophils, 1%; lymphocytes, 34%; and monocytes, 4%. The platelets were 188,000. The blood chemistry revealed calcium, 10 mg/100 ml; inorganic phosphorus, 4.5 mg/100 ml; BUN, 20 mg/100 cc. The uric acid value was 5 mg/100 ml; cholesterol 200 mg/100 ml. The total protein value was 8.8 gm/100 ml. The albumen fraction was 4.3 gm/100 cc and globulins, 4.5 gm/100 ml.

An immunoglobulin electrophoresis showed a monoclonal gammopathy of IgM macroglobulin (S_{19}). Alkaline phosphatase was 75 MU/ml (normal), and LDH was 160 MU/ml (normal). The urinalysis revealed a specific gravity of 1.021, protein 1+ and a pH of 6.

A bone marrow aspiration was reported as not diagnostic of malignant dysgammaglobulinemia; however, atypical plasma cell precursors were present. It was suggested that these may be reactive on a neoplastic basis.

A gastroscopic study was performed following the radiological examination and confirmed the radiological impression.

Radiologic Examination: An intravenous pyelogram was normal. There was no displacement of the ureters, and the kidneys were normal in appearance and function. A chest roentgenogram was negative. The important findings were confined to the stomach. The initial stomach examination was done on January 26 and the second study a week later so as to evaluate the small intestine (Fig. 1). The esophagus was normal, but the stomach lacked the normal pliability and contained large rugal folds with broad troughs (Fig. 2). The irregularity of these coarse folds was evident in the criss-cross appearance seen in the body of the stomach. In the antrum, which is normally devoid of coarse folds, prominent and noneffacing mucosal mounds were present. The lesser curvature of the stomach was slightly foreshortened; however, a large quantity of barium could distend the stomach. An impaired but effective peristaltic wave passed through the antrum.

The authors of this series of articles presenting unusual radiologic problem cases are from the Department of Radiology, Menorah Medical Center, where Doctor Rubin is Chairman. They were assisted in this case by Frank Mantz, Pathologist and Gustave Eisemann, M.D., Hematologist.

It was felt that there might be extrinsic disease as well as intrinsic involvement of the stomach to account for its appearance. The repeat examination failed to demonstrate any small intestinal disease and the colon examination was not contributory.

Radiological Diagnosis: 1. Lymphosarcoma.

Differential Diagnosis: 2. Carcinoma (Linitis plastica). 3. Menetrier's disease. 4. Zollinger-Ellison syndrome.

Pathology: Gastroscopic biopsy was made on Feb. 8, 1971. Biopsy showed focal mucosal infiltrate by lymphocytes, reticuloendothelial elements and plasma cells. The possibility of ma-

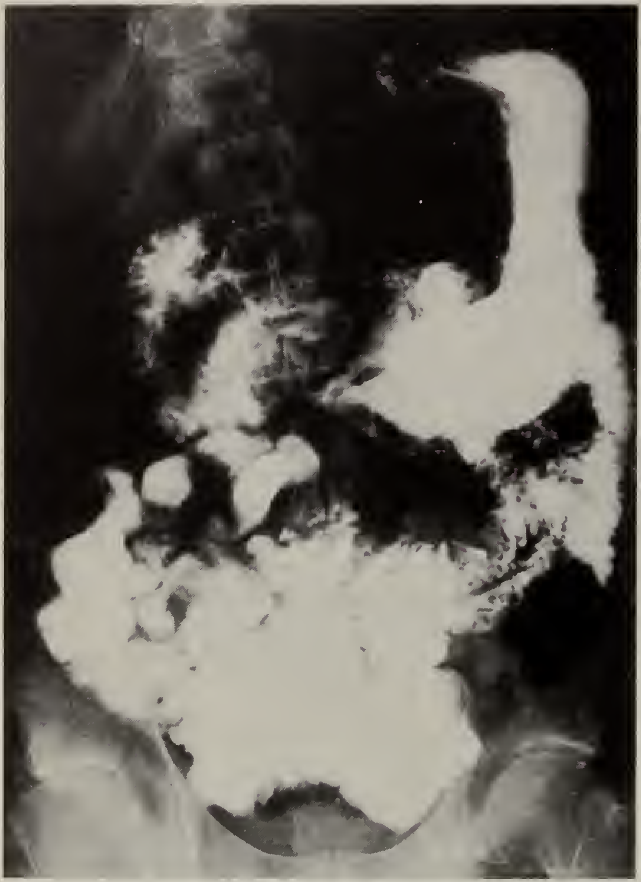

Fig. 1 The stomach folds are large and rigid with widened troughs. A criss-cross appearance is noted in the antrum. The entire stomach appears to be involved.

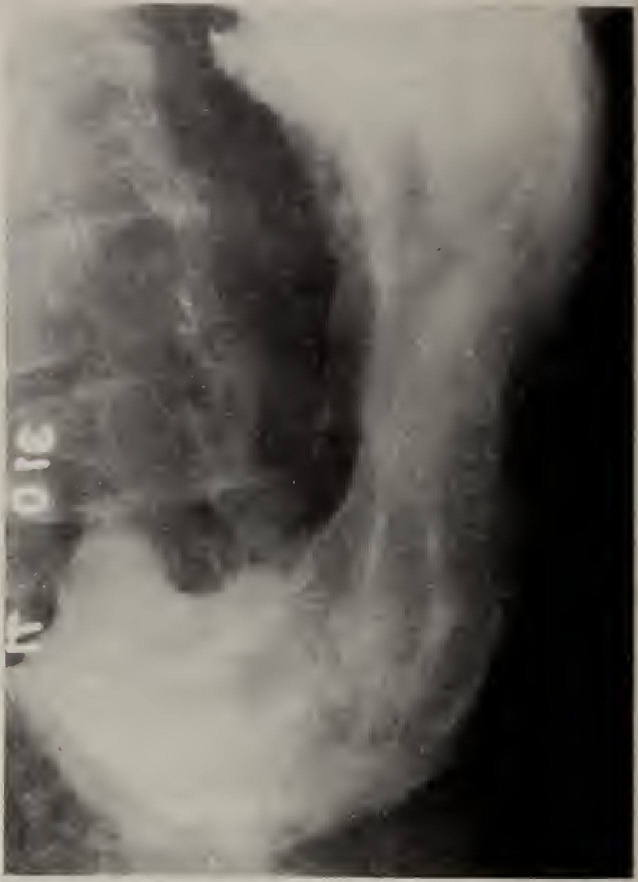

Fig. 2 Small intestinal study again emphasized the lack of pliability of the stomach. The curve of the stomach suggests some extrinsic abnormality. The small bowel examination was negative.

lignant lymphoma could not be excluded. Large lymph nodes and a gastric wedge comprised the specimen that was removed by surgical exploration.

Pathological Report: Process was malignant and was classified as mixed lymphoblastic and reticular type of lymphosarcoma. The greatest area of involvement was directly below the mucosa where there was a monotonous proliferation of lymphocytoid and reticular type cells.

Discussion

1. In *Linitis plastica,* the stomach is narrow and tubular, but patulous to barium flow. The stomach is rigid with no distensibility. In an occasional case, this disease may simulate lymphoma of the stomach and be indistinguishable except that in linitis plastica, uniformly, the stomach is devoid of mucosal folds.

2. *Menetrier's disease* can simulate lymphoma of the stomach due to the giant hypertrophy of the gastric mucosa.[1] This is a relatively rare entity that has been considered by some investigators to represent massive hypertrophic gastritis. The folds are markedly prominent with widened spaces between the folds. In this disease, the mucosal pattern seems to be confined to the corpus of the stomach while the antrum and prepyloric area are free of the abnormal rugae. This condition is associated with lymphocytic infiltration of the muscularis mucosa and hyperplasia of the parietal cells. The disease is more common in men and is frequently associated with hypoproteinemia. Hypochlorhydria or achlorhydria may be elicited on a gastric analysis.

3. *Zollinger-Ellison Syndrome.* Cases of the Zollinger-Ellison syndrome[2] have been reported in which the initial observation radiologically was the prominent rugal folds. The stomach is not rigid, and excessive secretions are seen within the lumen which is associated with the increased stimulation of the parietal cells. This parietal cell hypersecretion is produced by a pancreatic islet cell lesion and evokes an acid pH which accounts for the gastric and duodenal ulcerations which occur in this entity.

4. *Lymphoma sarcoma-reticulum cell plus Waldenström's macroglobulinemia.* Macroglobulinemia plus lymphoreticulum sarcoma of the stomach is recognized as a coexistent entity. The

abnormal globulin, which is found in a monoclonal gammopathy, may on occasion be excreted as a short-chain protein in the urine. This proteinuria is frequently mistaken for multiple myeloma. The incidence of this coexistent finding in 951 patients with lymphosarcoma was approximately 4%.[3]

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Acute Depressant Drug Overdose

(Continued from page 111)

You'll be gratified by their prompt response to your therapy.

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Amino Acid Screening

(Continued from page 116)

integration as a method for detection of inborn errors of amino acid metabolism has shown it to be effective, rapid and sufficiently inexpensive to warrant its use in routine surveys of mentally deficient patients. Both plasma and urine should be tested. Urine can be preserved with thimerosal for at least 48 hours at ordinary ambient temperatures. Either creatinine or total solids determined refractometrically may be used as a standard for measurement of amino acids in urine. Normal values derived from a survey of 560 mentally defective patients are presented for both plasma and urine amino acid bands defined by high voltage electrophoresis at pH 2.0 and quantitated against standard mixtures of amino acids. The authors believe that a survey of all mentally defective patients cared for by the Missouri Division of Mental Health would be economically practical.

Acknowledgement: This study was performed in the Multiphasic Testing Laboratory of the Missouri Regional Medical Program and the Department of Pathology, University of Missouri-Columbia School of Medicine. The following institutions of the State of Missouri Division of Mental Health took part in the study: Albany Regional Diagnostic Clinic, Marshall State School and Hospital, Poplar Bluff Regional Diagnostic Clinic, Rolla Regional Diagnostic Clinic and St. Louis School and Hospital.

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Treatment of Disseminated Mammary Carcinoma

THE INITIAL TREATMENT of breast cancer usually involves surgery. In most situations it is radical mastectomy, and, in addition in some cases, radiation therapy or adjuvant chemotherapy. In the majority of cases, the patient enjoys a clinically asymptomatic period of time following her mastectomy. This period from mastectomy to overt recurrence of disease is of variable length and is known as the disease-free interval. When the disease reappears, the patient is subjected to a variety of local and systemic therapy depending upon the patient's symptomatic complaints and objective clinical data. Despite all types of presently available therapy, about 30,000 women will die from the direct effects of the disease this year.[1]

For the purpose of this discussion, I will not deal directly with the problems that lead to local or specific therapy, such as pleural effusion, ascites, fracture, hypercalcemia and central nervous system (CNS) disorders, but will confine my remarks to systemic therapy of disseminated disease. Systemic therapy is comprised primarily of steroid hormones, hormonal alteration of the patient by surgery, i.e., oophorectomy, adrenalectomy and hypophysectomy, and chemotherapy. In spite of the fact that a large number of women are affected with this disease each year (more than 60,000), there is still confusion in regard to what is the proper management of the patient with disseminated mammary carcinoma. Some of the reasons for this dilemma are frustrating. Evaluation of therapy for breast cancer has been hampered in many studies by (a) lack of sufficient suitable patients, (b) inability to determine the full extent of disease, (c) difficulty in establishing criteria of response and (d) uncontrolled variation in dosage and spacing of therapeutic agents.

The goal of this brief summary of the literature on the treatment of disseminated mammary cancer is to provide a base from which the physician can deal with the breast cancer patient. Doctor Samaha is Assistant Professor of Medicine, Division of Hematology and Oncology, Department of Medicine, University of Missouri School of Medicine.

I will provide a brief review of the literature on the treatment of disseminated mammary carcinoma. For the sake of convenience, I have divided the discussion according to menopausal status of the patient.

PREMENOPAUSAL

Most investigators agree that primary therapy of disseminated breast cancer in the menstruating woman should be a bilateral oophorectomy. Escher[2] suggests that castration should be the first therapeutic approach of widespread disease in women who have had a natural menopause but have not stopped menstrual bleeding for a full year. Barlow *et al*[3] have demonstrated a significant fall in 17-beta-estradiol production following bilateral oophorectomy in premenopausal women, and they found a rise in the hormone production in women who were castrated following the menopause. They suggested that the adrenal glands are the significant source of this hormone in the postmenopausal patient. Some attention has been given to "prophylactic" oophorectomy at the time of mastectomy, but several reports now show little or no advantage of "prophylactic" castration as opposed to "therapeutic" castration at the time of progression of the disease.[4–7] In addition, response to "therapeutic" castration provides a singularly useful index of probable response to further ablative surgery.[8, 9] Several investigators have data to show that androgen therapy in the premenopausal patient results in a response rate of only 14% to 20%.[10, 11]

In two large series, Taylor[12] and Fracchia *et al*[13] reported a bilateral oophorectomy response rate of 30% and 35% respectively in premenopausal patients with disseminated cancer. Irradiation castration was much less satisfactory, producing a response rate of only 16%. In both papers, the objective response was determined by a measurable decrease in one or more dominant foci of disease without the appearance of new

TABLE 1

OOPHORECTOMY IN THE PREMENOPAUSAL PATIENT

Study	*Oophorectomy Response*	*Free Interval**	*Average Survival†*
Taylor (1962)	113/381 (29.7%)	32.0 mo (mean)	31.2 mo
	268/381 (70.3%) (No Response)	20.9 mo (mean)	8.8 mo
Fracchia *et al* (1969)	39/142 (28%)	< 1 yr	?
	60/176 (34%)	2-4 yr	?
	17/33 (55%)	> 5 yr	?

* Mastectomy to dissemination.
† Oophorectomy to death.

disease or progression of old lesions for at least six months. Postmenopausal patients had a regression rate of 3%. In both series, those patients who had a long free interval of disease from mastectomy to dissemination were more likely to respond to castration. Soft tissue, osseous and lung metastases had a higher index of response than did visceral, i.e., liver disease. As might be expected, those patients who had a response to castration had a significantly longer average survival time of 31.2 months as compared to 8.8 months for the nonresponders (Table 1).

Following bilateral oophorectomy, the physician is faced with several choices of therapy when the disease progresses. The two main determinants of immediate therapy are (a) the response to oophorectomy and (b) the site of metastatic disease. If the patient has not had a response to castration, her chance of responding to androgen therapy is very poor[2] and the likelihood of adrenalectomy or hypophysectomy producing a regression falls considerably.[8] Escher[2] reported a 4% response rate of androgen therapy in castration failures. Of 71 castration nonresponders, Macdonald[8] found that only eight (11.3%) responded to further ablative surgery. Fracchia *et al*[9] reported a 17% response rate to bilateral adrenalectomy in 42 oophorectomy nonresponders. In both of the latter series, the response rate was about 45% to major ablative surgery in prior castration responders (Table 2). In addition to castration regression of metastases as an index of the chances of a response to further ablation, one has to consider the site of the disseminated disease. Macdonald[8] reported an overall visceral metastatic response of 16% to adrenalectomy and 23% to hypophysectomy, while soft tissue and osseous disease gave about a 35% response rate to both procedures. Fracchia *et al*[9] had a 10% response rate in liver metastases and 0% response in brain disease in all their patients undergoing adrenalectomy; and Harris and Spratt[14] reported a 0% response of liver and CNS metastatic tumor to adrenalectomy. The exact role of other modes of therapy, such as corticosteroids, progesterone, testolactone and chemotherapy, remains uncertain. In general, these agents have been used when all other therapy has failed. The corticosteroids have largely proved ineffective except in the treatment of hypercalcemia and in providing symptomatic relief in cerebral metastases.[15–17] The progestins

TABLE 2

MAJOR ABLATIVE SURGERY FOLLOWING CASTRATION

Study	*Procedure*	*Castration Response*	*Ablative Response*
Macdonald (1962)	Hypophysectomy or adrenalectomy	49 responders	22/49 (44.7%)
		71 nonresponders	8/71 (11.3%)
Kennedy and French (1965)	Hypophysectomy	39 responders	19/39 (49%)
Fracchia *et al* (1967)	Adrenalectomy	118 responders	47/118 (40%)
		42 nonresponders	7/42 (17%)
Harris and Spratt (1969)	Adrenalectomy	10 responders	6/10 (60%)
		12 nonresponders	4/12 (33%)

TABLE 3

CHEMOTHERAPY

Study	*Drug*	*Pt. Response*	*Duration*
Grinberg (1965)	Vincristine	7/32 = 22%	?
Talley (1965)	Cytoxan	7/32 = 22%	7 mo (avg)
	5 FU	11/30 = 36%	7 mo (avg)
Brennan & Talley (1966)	5 FU: Total	58/252 = 23%	?
	< 1 yr postmenop	20/64 = 31%	?
Vogler (1968)	Methotrexate (Mtx)	4/21 = 19%	?
Eastern Coop. Group (1967)	5 FU	8/30 = 27%	8 weeks (avg)
	Mtx	5/35 = 14%	10 weeks (avg)
Silva (1965)	5 FU	41/108 = 38%	?
	Thiotepa	10/43 = 23%	?
Greenspan (1963)	Mtx + Thiotepa	10/40 = 25%	6 mo

have had a very low response rate (0%-10%) in many series[17, 18] except for one report of a 29% response rate in 17 patients.[19] All of the responders in the latter series had a previous response to hormone. Delta-one testolactone in an oral dose of 150 mg daily gave five objective responses out of 103 patients in one report.[18]

In many series of small numbers of patients, the use of single drug chemotherapy has been found to give response rates of around 20%.[20–26] 5-Fluorouracil has been the most widely used single agent, and in several large series,[22, 25, 27] the response rate has been a respectable 25%-35% (Table 3). The use of cytotoxic agents in these patients has significantly prolonged their survival time. In some reports, this prolonged survival was directly attributable to a disease-free interval following chemotherapy.[27] During the past few years, a sporadic number of reports have dealt with the use of combinations of agents in patients with disseminated breast cancer.[27–29] Combining agents of different anti-cancer activity does have both experimental and clinical validity as demonstrated in certain types of adult cancers, most notably leukemia and lymphoma.[30]

The patient who has had a response to "therapeutic" castration followed by progression of her disease will have a significantly greater response rate to ablative surgery, as has been mentioned. Kennedy and French[31] reported a regression rate of 49% to hypophysectomy in castration responders, and Fracchia *et al*[9] had a 40% adrenalectomy response in castration responders. In a large series of cases, Macdonald[8] has shown that there is no significant difference in response rate for either adrenalectomy or hypophysectomy. In addition, there was no significant difference in survival for responders to either procedure. Responders had an average survival of 23 months while the nonresponders' average survival was significantly shorter, only seven months (Table 4). As is true with most modes of therapy in this disease, responders have a significantly greater interval free of disease from mastectomy to dissemination. The exact biological significance of this latter observation remains obscure. As mentioned, the overall response of liver and CNS metastases to ablative surgery is significantly lower than soft tissue, bone and pulmonary disease.[8, 9] Escher and Kaufman[11] have argued that since androgen gives a response rate equal to that of ablative surgery in the castration responder (the number of their cases is very low, however[2]), the hormone should be used first because it is ineffective following ablative surgery even in the responders.[31, 32] On the other hand, Dao and Nemoto[33, 34] suggest that ablative surgery should be used before androgen therapy because many of their patients who had hormone first did not undergo ablation because of poor clinical condition due to advancing disease. Some authors report that response to ablative surgery does not appear to be deleteriously influenced by prior steroid hormone therapy,[9] and in some series, androgen responders have had a higher response rate to subsequent ablation.[14] If ablative surgery is used first after castration and the disease subsequently progresses, chemotherapy appears to be the next logical choice for treatment. If androgen is used first, then ablative surgery may be tried depending upon the metastatic site of disease. Estrogen has been reported to be relatively ineffective as secondary therapy after hormone manipulation (additive or ablative).[11] Dis-

TABLE 4

I. MACDONALD, ENDOCRINE ABLATION IN DISSEMINATED MAMMARY CARCINOMA. SURG., GYN., AND OBS. 115:215, 1962

Objective: Comparison of adrenalectomy and hypophysectomy

Results	*Adrenalectomy* NO.	*Adrenalectomy* PERCENT	*Hypophysectomy* NO.	*Hypophysectomy* PERCENT
Total	801		390	
Post-op deaths	111	13.9%	50	12.8%
Evaluable	690		340	
Responders	196	28.4%	111	32.6%
Soft tissue	28/81	34.6%	14/45	31.1%
Osseous	100/267	37.5%	62/164	37.8%
Visceral	44/269	16.4%	22/95	23.2%
1° Inoperable	24/73	32.9%	13/36	36.1%
Survival from ablation to death	AVERAGE (MONTHS)		AVERAGE (MONTHS)	
Responders	24.2		22.7	
Nonresponders	7.7		6.9	

seminated carcinoma in the liver or CNS or the presence of myelophthisic anemia would tend to rule against the use of ablative surgery and suggest chemotherapy.[9, 14] The presence of symptomatic cerebral metastases is probably best handled by corticosteroids and irradiation.[35]

POSTMENOPAUSAL

This physiological subdivision refers to the woman who was premenopausal at the time of her mastectomy and then passed through the menopause (usually naturally) or the patient who was postmenopausal (or postbilateral oophorectomy) at the time of initial surgery. When widespread disease appears in the postmenopausal patient, most investigators have selected either androgen or estrogen as primary therapy. It is now well recognized that steroid hormones may require up to three months for a response to occur. Kennedy[36] reports that about 90% of responses are manifest at the end of two months. Therefore, hormones should not be begun if the physician believes the patient will not survive at least several weeks. In some cases, the presence of active CNS or liver disease precludes hormone therapy and suggests the use of irradiation or chemotherapy. Escher[2] suggests that hormones not be used unless "compelling evidence of recent progression of the disease" is present since these drugs are not curative and the patient's own body defenses may maintain reasonable control over the disease for a considerable period of time. In addition, it is well known that either steroid hormone can occasionally cause an exacerbation of the disease. When steroid hormones are begun, the physician must continue the drugs for at least two to four months (in the absence of flagrant exacerbation) before deciding that the patient has failed to obtain a response.

In dealing with steroid hormones as primary therapy of disseminated disease in the postmenopausal patient, it is useful to deal separately with those patients less than five years past men-

TABLE 5

HORMONE THERAPY IN THE POSTMENOPAUSAL PATIENT

Study	Hormone	*Response by Year Post-Menopause* < 5 YEARS	*Response by Year Post-Menopause* > 5 YEARS
A.M.A. (1960)	Androgen	27/154 (17.5%)	54/227 (23.8%)
	Estrogen	4/32 (12.5%)	105/278 (37.8%)
Escher and Kaufman (1961)	Androgen	17/114 (15%)	16/82 (19.5%)
	Estrogen	2/11 (18.2%)	64/176 (36.5%)
Kennedy (1965)	Androgen		6/59 (10%)
	Estrogen		16/55 (29%)

opause and the rest who are greater than five-years menopausal (Table 5). The two most widely used hormones are (1) testosterone propionate in a dose of 100 mg, IM, three times a week and (2) diethylstilbestrol 5 mg, p.o., three times a day. Several series[10, 11, 36] have shown that the less than five-years-past-menopause patients have a lower response rate to both androgen and estrogen. In the latter patients, the response rate for both steroid hormones is about 15% with some series showing a slight advantage to either one.[10, 11] Most of the series show no significant difference in response according to metastatic site, i.e., soft tissue, bone and viscera. As might be expected, responders have a significantly greater survival time.[10] Pearson and Ray[37] and Kennedy and French[31] have found about a 42% response rate to hypophysectomy in patients less than five years past menopause. Also, Kennedy and French[31] reported a much higher response rate to hypophysectomy in patients who are greater than four-years postmenopausal or who had a prior steroid hormone response.

Fracchia *et al*[9] found about a 40% response to adrenalectomy in 150 patients who had had previous steroid hormone therapy. In the latter series, they found no significant effect of steroid hormone response on later adrenalectomy. Other modes of hormone therapy have no reported advantage and are probably less effective than androgen or estrogen.[15, 17, 18] Of interest, Brennan and Talley[22] have presented data which showed that 5-fluorouracil may be significantly more effective than steroid hormone in patients who are less than one-year postmenopausal. However, the length of regressions were greater in the hormone responders. In their paper, they found that 5-fluorouracil effectiveness fell off with increasing menopausal age while it is well known that hormone effectiveness increases with menopausal age.

Of particular interest is the possible controversy surrounding castration in the postmenopausal patient. In their review, Moore *et al*[38] have made the unsupported statement that oophorectomy should be used as the first step in any patient under the age of 75. These authors also state that "about 50% of patients who are within ten years of the menopause may be expected to respond favorably to a therapeutic oophorectomy undertaken to palliate symptomatic metastatic breast cancer" in reference to the article of Kennedy and Fortuny.[39] This latter statement can easily be misunderstood since Kennedy and Fortuny[39] reported on a series of 177 patients of which only seven were postmenopausal but within five years of the menopause. These latter authors did report an overall 47.5% response rate, but *the postmenopausal patients were not considered separately.* In their cumulative experience, Spratt and Donegan[40] found only one postmenopausal woman who responded to castration and they state that the vaginal smear does not correlate well with the likelihood of a response to ovarian ablation. In the patient with disseminated disease who is less than one year past menopause, Fracchia *et al*[13] and Treves and Finkbeiner[41] reported a total of four responders out of 49 patients giving an overall 8% response rate. In four series,[12, 13, 41, 42] six women out of a total of 111 patients, who were greater than one year past menopause, responded to castration giving an overall 5% response rate. Therefore, it would seem clear that oophorectomy alone is poor therapy for disseminated disease in the patient less than one year past menopause and is rarely justified for the patient greater than one year past menopause.

As menopausal age increases, investigators have found that both androgen and estrogen increase in effectiveness with the estrogens becoming distinctly superior.[10, 11, 36] Haines *et al*[43] reported no advantage to combining an estrogen with an androgen over single agent therapy. In the patient with disseminated disease who is greater than five-years postmenopausal, some series[10, 11] have shown an estrogen response rate of about 35% while androgens gave about a 25% regression rate. Steroid hormones are considered the primary therapy of choice in this patient. Escher and Kaufman[11] have shown that androgen and estrogen are much less effective when used as secondary therapy after other hormonal manipulation. Kaufman and Escher[44] have reported the phenomena of rebound regression in which patients who had a response to either steroid hormone and then had progression of the disease may have, upon stopping the drug, subsequent regression of lesions. After steroid hormones have been used, one may still want to utilize adrenalectomy or hypophysectomy.[8, 9, 16, 31] If the disease is located in the liver, CNS or marrow or is rapidly progressing, one should consider chemotherapy as the next approach. Undoubtedly, chemotherapy has earned a role in the treatment of patients with disseminated breast cancer, especially combinations of agents. One recent report on the use of a five-drug regimen gave rather dramatic response rates, but the cases are poorly documented.[45] At present, as members of a cooperative cancer treatment group, we are engaged in a prospective study of

PREMENOPAUSAL PATIENT THERAPY

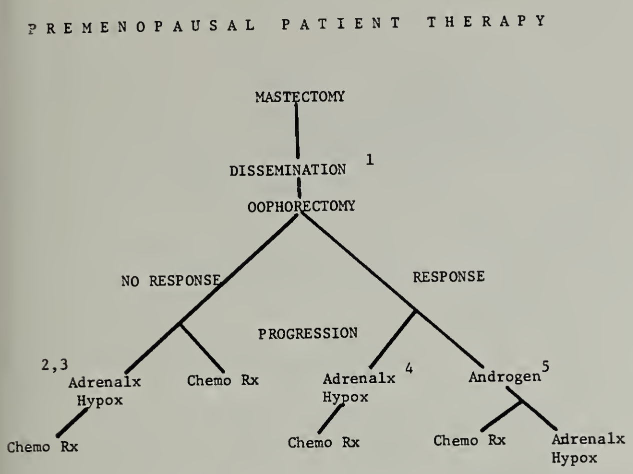
PREMENOPAUSAL PATIENT THERAPY
MASTECTOMY
DISSEMINATION 1
OOPHORECTOMY
NO RESPONSE
RESPONSE
PROGRESSION
2,3
Adrenalx
Hypox
Chemo Rx
Adrenalx
Hypox
4
Androgen
5
Chemo Rx
Chemo Rx
Chemo Rx
Adrenalx
Hypox

Fig. 1 (1) See text for percent response for each therapy. (2) Adrenalx = adrenalectomy and Hypox = hypophysectomy. (3) Castration failures respond poorly to ablation. (4) Castration responders respond well to ablation except for liver and central nervous system disease. (5) Data for androgen here is based on small numbers.

the efficacy of a five-drug vs a three-drug chemotherapy regimen.

Summary

In this brief paper, I have attempted a summary of the literature on the treatment of disseminated mammary cancer. In the menstruating woman who later develops progression of her disease, bilateral oophorectomy is the primary treatment of choice. Patients who do not respond to castration are probably best treated by chemotherapy. In the castration responder, one has a choice of further ablative surgery or androgen. Subsequent therapy will be dictated by the initial choice of treatment following castration (Fig. 1). In the postmenopausal patient who is less than five years past menopause, androgen or estrogen both give a response rate of about 15%. Of interest, 5-fluorouracil may be more effective in the patient who is less than one year past menopause. Ablative surgery is useful, depending upon the site of metastatic disease, and, in several series, ablation has given respectable response rates both prior to and after steroid hormone treatment. Castration alone is decidedly inferior to all other modes of therapy in the postmenopausal patient. In the greater than five-year-postmenopause patient, steroid hormone is effective with estrogen superior to androgen. Following hormone therapy, ablative surgery or chemotherapy should be considered as discussed in the paper (Fig. 2).

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POSTMENOPAUSAL PATIENT THERAPY

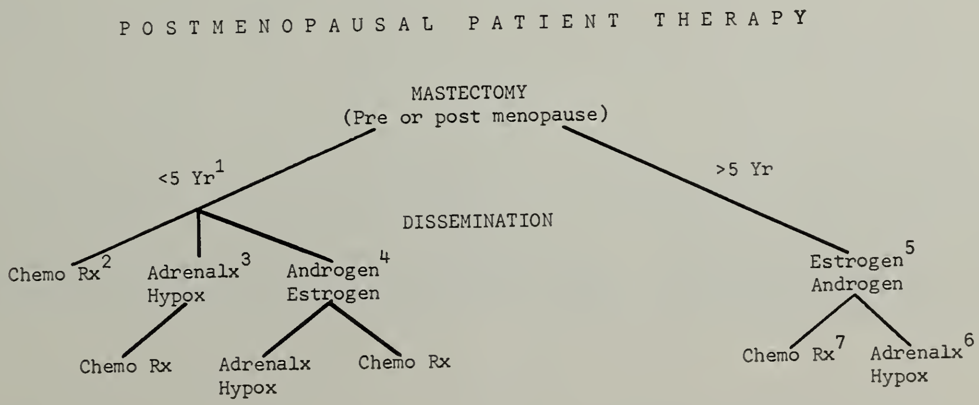
POSTMENOPAUSAL PATIENT THERAPY
MASTECTOMY
(Pre or post menopause)
<5 Yr 1
>5 Yr
DISSEMINATION
Chemo Rx 2
Adrenalx 3
Hypox
Androgen 4
Estrogen
Estrogen 5
Androgen
Chemo Rx
Adrenalx
Hypox
Chemo Rx
Chemo Rx 7
Adrenalx 6
Hypox

Fig. 2 (1) Refers to years postmenopause. (2) 5-FU may be superior to androgen in $<$ 1 year post menopause. (3) Ablative surgery has proved useful. Some authors might prefer steroid hormones first since they are ineffective as secondary therapy. (4) Both hormones about equally effective (15% responses) and both may take up to three months before regression seen. (5) Estrogen superior to androgen but both effective (~ 30% responses). (6) Exact role of ablative surgery uncertain—some reports suggest may be more effective in hormone responders. (7) Chemotherapy has always been used when all else failed: exact role uncertain.

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Reprints: Richard J. Samaha, M.D.
University of Missouri
N. 407 Medical Center
Columbia, Mo. 65201

The Kansas Division, American Cancer Society, will present the **24th Annual Midwest Cancer Conference** at the Broadview Hotel in Wichita, Kan. on March 17-18, 1972. All physicians in the Midwest are invited to attend the two-day graduate course entitled "Cancer Progress in the 70's." Registration is free. For additional information, contact Paul A. Baumann, M.D., American Cancer Society, Kansas Division, Inc., 824 Tyler St., Topeka, Kan. 66612.

President's Message

Medical organizations today are facing tremendous challenges not only from outside the profession, but from some who are a part of the medical community. It is probably well that there are those physicians who are interested enough to challenge the activities of medical organizations and seek to redirect those activities in the path they favor.

Unfortunately, some of the challenges from within, instead of being constructive, are actually fragmenting and dividing our profession rather than bringing us closer together as we need to be today. Instead of dissipating our strength in intramural struggles over our own disagreements, we should be more united than ever before. It is not enough that a physician belong to his county society alone or to his county society and his state association. Instead, physicians need to belong to and support their county society, state association and the American Medical Association, as well as the organization or organizations active in their own special fields. *Voluntary* unified membership is most important if we are to continue the practice of medicine as we know it today.

Gerald L. Miller, M.D.

In an effort to stress this need for unity in the profession, I have written to the presidents of all of the active specialty societies in Missouri urging their help and cooperation in working for medical unity. A copy of my letter also has been sent for their information to the presidents of all state medical associations.

In addition to seeking the aid of the Missouri specialty societies, I have told their presidents that the MSMA Council has approved a program under which the MSMA office will be able to provide all needed services, at a reasonable charge, for all medical specialty societies which are interested in such a program. Details are still being formulated, but I hope that the program will be in operation soon for the good of MSMA, as well as of the specialty groups served.

Medicine is in a time of severe challenge. Only by forming a solid front and working for the common good may we continue to practice our profession as we do today.

I know that those of you who read this page are the physicians who believe in medical unity. I hope that you will pass this message along to all of the physicians with whom you come in contact.

It is a message which cannot be too oft repeated.

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Woman's Auxiliary

Environmental Health

Drug Abuse

Teenage VD

Legislation

Scholarship Funds

Children & Youth

Blood Banks

Health Fairs

Doctor's Day

Health Careers

Community Health

International Health Activities

Missouri State Medical Foundation

AMA-ERF

Mrs. Frank J. Valach
President

These are the fields in which members of the Woman's Auxiliary to the MSMA are working effectively. Within this list of projects, we hope there will be one or more to interest your wife if she is not now an Auxiliary member. If she would like to join us, please contact me, Mrs. Frank J. (Annabel) Valach, 4 Nassau Circle, St. Louis 63141. *Her membership helps you.*

In acute gonorrhea

(urethritis, cervicitis, proctitis when due to susceptible strains of N. gonorrhoeae)

Sterile Trobicin®
(spectinomycin dihydrochloride pentahydrate)—For Intramuscular injections, 2 gm vials containing 5 ml when reconstituted with diluent. 4 gm vials containing 10 ml when reconstituted with diluent.

An aminocyclitol antibiotic active *in vitro* against most strains of *Neisseria gonorrhoeae* (MIC 7.5 to 20 mcg/ml). Definitive *in vitro* studies have shown no cross resistance of *N. gonorrhoeae* between Trobicin and penicillin.

Indications: Acute gonorrheal urethritis and proctitis in the male and acute gonorrheal cervicitis and proctitis in the female when due to susceptible strains of *N. gonorrhoeae*.

Contraindications: Contraindicated in patients previously found hypersensitive to Trobicin. Not indicated for the treatment of syphilis.

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Warnings: Antibiotics used to treat gonorrhea may mask
delay the symptoms of incubating syphilis. Patients should
carefully examined and monthly serological follow-up for
least 3 months should be instituted if the diagnosis of syphili
suspected.

Safety for use in infants, children and pregnant women has
been established.

Precautions: The usual precautions should be observed w
atopic individuals. Clinical effectiveness should be monitored
detect evidence of development of resistance of *N. gonorrhoe*

Adverse reactions: The following reactions were observ
during the single-dose clinical trials: soreness at the injection si
urticaria, dizziness, nausea, chills, fever and insomnia.
During multiple-dose subchronic tolerance studies in norn
human volunteers, the following were noted: a decrease in hem

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---

gh cure rate:* 96% of 571 males, 95% of 294 females
osages, sites of infection, and criteria for diagnosis and cure are defined below.)**

surance of a single-dose, physician-controlled treatment schedule

allergic reactions occurred in patients with an alleged history of penicillin sensitivity hen treated with Trobicin, although penicillin antibody studies were not performed

tive against most strains of Neisseria gonorrhoeae in vitro (M.I.C. 7.5-20 mcg/ml)

single two-gram injection produces peak serum concentrations averaging about 0 mcg/ml in one hour (average serum concentrations of 15 mcg/ml present 8 hours after dosing)

ote: Antibiotics used in high doses for short periods of time to treat gonorrhea may mask or delay the mptoms of incubating syphilis. Since the treatment of syphilis demands prolonged therapy with any fective antibiotic, and since Trobicin is not indicated in the treatment of syphilis, patients being treated for onorrhea should be closely observed clinically. Monthly serological follow-up for at least 3 months should instituted if the diagnosis of syphilis is suspected. Trobicin is contraindicated in patients previously found persensitive to it.

ata compiled from reports of 14 investigators. **Diagnosis was confirmed by cultural identitication of *N. gonorrhoeae* on Thayer-artin media in all patients. Criteria for cure: negative culture after at least 2 days post-treatment in males and at least 7 days post-eatment in females. Any positive culture obtained post-treatment was considered evidence of treatment failure even though the llow-up period might have been less than the periods cited above under "criteria for cure" except when the investigator determined at reinfection through additional sexual contacts was likely. Such cases were judged to be reinfections rather than relapses or ilures. These cases were regarded as non-evaluatable and were not included. JA72 1848-6

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obin; hematocrit and creatinine clearance; elevation of alka-e phosphatase, BUN and SGPT. In single and multiple-dose udies in normal volunteers, a reduction in urine output was oted. Extensive renal function studies demonstrated no con-stent changes indicative of renal toxicity.

osage and administration: Keep at 25°C and use within 4 hours after reconstitution with diluent.

lale—single 2 gram dose (5 ml) intramuscularly. Patients with onorrheal proctitis and patients being re-treated after failure f previous antibiotic therapy should receive 4 grams (10 ml). In eographic areas where antibiotic resistance is known to be pre-alent, initial treatment with 4 grams (10 ml) intramuscularly is referred.

emale—single 4 gram dose (10 ml) intramuscularly.

low supplied: *Vials, 2 and 4 grams—with ampoule of Bacteriostatic Water for Injection with Benzyl Alcohol 0.9% w/v.* Reconstitution yields 5 and 10 ml respectively with a concentration of spectinomycin dihydrochloride pentahydrate equivalent to 400 mg spectinomycin per ml. For intramuscular use only.

Susceptibility Powder—for testing *in vitro* susceptibility of *N. gonorrhoeae.*

Human pharmacology: Rapidly absorbed after intramuscular injection. A two-gram injection produces peak serum concentrations averaging about 100 mcg/ml at one hour with 15 mcg/ml at 8 hours. A four-gram injection produces peak serum concentrations averaging 160 mcg/ml at two hours with 31 mcg/ml at 8 hours.

For additional product information, see your Upjohn representative or consult the package insert. MED-B-1-S (LWB)

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EDITORIAL

PHYSICIAN—CLERGY IN COMMON CONCERN

During World War II, when gasoline rationing sharply curtailed the use of automobiles, a widely circulated cartoon pictured two cars meeting on an otherwise completely deserted road. As they approached each other, the drivers raised their hands in friendly greeting: "Hi, Doc!" "Hi, Reverend!" There is a parable here. Most obvious is the fact that these two professions were entrusted with ample gasoline to make their rounds, indicative of the cultural feeling that they were in some sense essential to the welfare of the community.

Although the relationship between the physician and the clergyman has been most cordial, perhaps this relationship has been more evident socially than professionally. Both physician and clergyman should always be aware that each must be concerned with the whole man, and for the man to be a "well" person, he must be both physically and spiritually strong. Because of the complimentary nature of their profession, those who are in need of their help look for them to be both cooperative and complimentary in their ministry . . . be it spiritual or of the healing arts. When they meet at the bedside of those who are ill, there is often a searching gaze turned in their direction from those who suffer and from those who stand and wait. The patient realizes the difference in the professional response of the two, but he is always hopeful that they might have a common concern, the renewal of the whole man, healthy in both body and soul.

It is becoming more and more evident that the search for wholeness is already under way as doctor and minister increasingly become aware that each is involved in the work of the other. The most striking demonstration of this cooperative venture is occurring in the curricular developments and in-service training programs of theological seminaries, medical schools and hospital centers. On undergraduate as well as graduate levels, students of medicine and theology meet in clinical settings and gain a new appreciation of the responsibilities which each discipline faces and the resources it brings to the common task. Moreover, creative group discussions are being carried on by clergymen and physicians in which long neglected relationships are being established. Basically, these conversations have one thing in common, that is to provide an opportunity for better understanding.

Growing out of these training programs and conversations there has developed the kind of cooperation that is of a radically different character than a simple division of labor. Essentially, it involves an awareness of the fact that the physician cannot treat the physical distress of man without having a real effect on his spirit, and at the same time the clergyman can never simply engage in the cure of souls with no concern for the physical dimension of life. This does not mean that these men begin to assume the professional functions of the other, for each is prepared by study and experience to make a distinctive contribution. It does mean that the coordinated ministry is performed in an awareness that each profession is involved in the work of the other.

This team relationship between clergyman and physician offers a challenging opportunity in a time when both theology and medicine are exploring the implications of the wholeness of man. True in metropolitan centers, this cooperative venture is especially imperative in nonurban areas where the cultural patterns incorporate the minister and the doctor into the warp and woof of community life. As these two join in ministering to those who suffer not just the pains of the body nor yet just the pains of the soul, but suffer as whole persons, they discover that the healing they bring transcends a temporary remission of symptoms whether induced chemically or by suggestion. In such a ministry they not only bring life, but in bringing it, they find it.

St. Louis County Medical Society Bulletin

IMPROVED ACCIDENT & HEALTH PROGRAMS

The Disability Income Policy sponsored by the Missouri State Medical Association since 1943 has now been made GUARANTEED RENEWABLE and income benefits are available up to $300.00 weekly to members under age 56 subject to acceptance by the Company.

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Book Review

MEDICINE ON THE SANTA FE TRAIL

Thomas B. Hall, M.D., Arrow Rock, formerly Professor of Clinical Dermatology and Lecturer in the Department of Medical History, Kansas University Medical School and a Consultant in Medicine at the University of Missouri School of Medicine.

I think all physicians are history buffs, to some extent at least, where medical history is concerned. Some of us are just "buffier" than others, but most have some interest if the subject matter is local. So, in spite of not being a bonafide hobbyist, I quite immodestly assigned myself the task of reviewing this book.

Doctor Hall starts with an introduction which gives background, but also partially previews what is to come. His admiration for Drs. Sappington and Thomas B. Lester are evident and supported by his record of their accomplishments. A short biography of Doctor Lester follows, after which comes an annotated reproduction of the diary of Doctor Lester, written as he accompanied the Illinois regiment along the trail to Santa Fe. A chapter on the First Regiment Illinois Volunteer Infantry and others on their health record and the period in Santa Fe itself finish the first half of the book.

There is a certain amount of repetition which, I suppose, is unavoidable with the arrangement of the book. The last half discusses the diseases and medical problems "on the trail." It is interesting that the author devotes proper attention to the relationship of men and their health to the environment without once using the overworked and sometimes misunderstood word, "ecology." Also it is of interest that the original sheepskin diary of Doctor Lester is in the author's possession.

The price of $12.50 may seem a little "steep" for a short book (120 pages actual text) until one realizes that this is a limited edition written for a group with select interest.

JOSEPH V. FINNEGAN, M.D., *Editor*

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County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

BUCHANAN COUNTY MEDICAL SOCIETY

Dr. Lawrence H. Pifer, general practitioner, was installed as the 68th President of the Buchanan County Medical Society at the annual meeting and installation on Dec. 1, 1971 at the St. Joseph Country Club.

Dr. Sharon E. Waggoner, retiring President, presided at the event and served as installing officer. Dr. Elza F. Butler, industrial surgeon, was installed as President-Elect. Other officers inducted at the meeting were Drs. Randal W. Weed, Vice-President; William B. O'Connor, Secretary; and Robert W. Kieber, Treasurer. This is Doctor Kieber's 19th consecutive term in this office.

Dr. G. Tyson Carpenter was installed for a three-year term on the Board of Censors. Dr. Allen I. Herman was elected as a Delegate to the MSMA and Drs. R. Philip Acuff, Donald J. Stallard and William B. Rost were elected Alternate Delegates. Dr. Edmund W. Kline was named to the Committee on Public Policy, Dr. John T. Rogers to a five-year term on the Board of Trustees and Doctor Waggoner to a three-year term on the Executive Secretary Committee.

Doctor Pifer obtained his medical education at the Indiana University Medical School and interned at St. Joseph Hospital in St. Joseph. He has been in the general practice of medicine in St. Joseph since completing his internship in 1953. He is an active pilot, sportsman, ham radio operator and an avid radio-controlled model plan builder. He and Mrs. Pifer are the parents of four chlidren.

Following the dinner and installation, the physicians and their wives were entertained by "The Chantes," a quartet branch of the "Sweet Adelines."

Mr. Edward M. Hirsch, Executive Secretary of the Society for the past 25 years, was recognized at the meeting for his service and was presented a tangible gift of appreciation for his work during that time.

Arrangements for the dinner and meeting were made by the Program Committee, which includes Dr. Richard O. Craig, Chairman; Dr. Martin J. Fischer and Dr. Gerald E. Fox.

WILLIAM B. O'CONNOR, M.D., *Secretary*

GRAND RIVER MEDICAL SOCIETY

Forty-six members and guests met at the Strand Hotel in Chillicothe for the annual Christmas dinner party for the Grand River Medical Society on Dec. 9, 1971.

The Society was honored to have as guests Dr. Gerald L. Miller of Kansas City, President of the Missouri State Medical Association, and Mrs. Miller; Dr. John N. Martin of St. Joseph, Councilor of the First MSMA District; Mr. Ray McIntyre, Executive Secretary of the MSMA, and Mrs. McIntyre; and Mr. Royal O. Cooper, MSMA Field Secretary.

"The Creators" played dance, dinner and Christmas music during the social hour and dinner. Doctor Miller discussed matters currently pertinent to medicine at the dinner.

There was no business and the meeting adjourned.

FRANK R. DALEY, M.D., *Secretary*

SECOND DISTRICT

COUNCILOR
LYSLE M. BACH, M.D., HANNIBAL

CHARITON-MACON-MONROE-RANDOLPH COUNTY MEDICAL SOCIETY

The regular meeting of the Chariton-Macon-Monroe-Randolph County Medical Society was held on Dec. 9, 1971 at Woodland Hospital Medical Library in Moberly.

President J. Will Fleming, Jr. of Moberly presided at the meeting. Dr. James E. Campbell, Macon, arranged the program.

Dr. William J. Crowley, Jr., Diplomate in Neurology, was the speaker. He is associated with Dr. John Somers in private practice in Columbia.

Doctor Crowley's subject was Neurological Problems as seen by the physician in family practice. He listed items of special equipment and procedures performed by the neurologist and told of the indications and limitations for each. He remarked that the neurologist is viewed primarily as a diagnostician, but during the past ten years, treatment has advanced remarkably and many diseases or conditions formerly considered hopeless can now be given a more favorable prognosis.

During the question-and-answer period, Doctor Crowley discussed multiple sclerosis, pyramidal and extra-pyramidal symptoms, treatment of Parkinson's Disease and fever convulsions.

(Continued on page 136)

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,nd Efudex® (fluorouracil) 5% cream can resolve it.

ll it actinic, solar or senile keratoses, ıny regard it as "precancerous."[1,2]

ical fluorouracil, considered by some dermatologists to be a major
ance in the treatment of multiple solar keratoses,[3,4] offers the physi-
n a relatively inexpensive alternative to cryosurgery, electrodesic-
ion and cold knife surgery. Of the topical fluorouracils available, only
ıdex offers 2% and 5% solution and 5% cream formulations—formula-
ns that have proved effective in the treatment of these mutliple lesions.

sual duration of therapy, 2 to 4 weeks.

ıdies showed that with the 2% and 5% Efudex preparations, the usual
ation of therapy was only 2 to 4 weeks.[5] Other studies with topical
rouracil revealed that when concentrations of less than 2% were
d, significant numbers of lesions recurred.[6]

reats the lesions you can't see, too.

ımerous lesions, not apparent prior to 2% and 5% Efudex therapy,
ınifested themselves by definite reactions, while intervening skin
mained relatively unaffected.[5] The early eradication of these subclini-
l lesions (which may otherwise have undergone further progression)
obably accounts for the reduced incidence of future solar keratoses in
tients treated with topical fluorouracil—especially with 5%
ncentrations.[6]

ow to identify solar keratoses.

ypically, the lesion—a flat or slightly elevated brown to red-brown
ıpule—is dry, rough, adherent and sharply defined. Multiple lesions
e the rule.

redictable therapeutic response.

he response to a typical course of Efudex therapy is usually
ıaracteristic and predictable. After 3 or 4 days of treatment, erythema
egins to appear in the area of keratoses. This is followed by a moderate
intense inflammatory response, scaling and occasionally moderate
nderness or pain. The height of this response generally occurs two
eeks after the start of therapy and then begins to subside as treatment
stopped. Within two weeks of discontinuing medication, the
ıflammation is usually gone. Lesions that do not respond should
e biopsied.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity to any of its components.

Warnings: If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

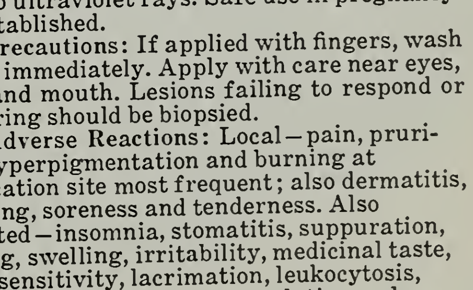
Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

How Supplied: Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)aminomethane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).



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rune & Stratton, 1967, p. 842. 2. Dillaha, C. J.; Jansen, G. T., and Honeycutt, W. M.:
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lein, E.: *Cancer*, *25*:450, 1970.

Before introducing the speaker, Doctor Fleming reported on points of interest at the recent Clinical Meeting of the American Medical Association which he attended in New Orleans, La.

Members present were Drs. D. E. Eggleston and J. E. Campbell, Macon County; F. L. Harms and D. D. Stuart, Chariton County; J. Will Fleming, Jr., T. S. Fleming, R. H. Young, W. D. Chute, C. C. Cohrs, L. E. Huber, P. V. Dreyer and R. V. Tompson, Randolph County; and F. A. Barrett, Monroe County.

W. Deward Chute, M.D., *Secretary*

NINTH DISTRICT

COUNCILOR
E. A. STRICKER, M.D., ST. JAMES

South Central Counties Medical Society

The South Central Counties Medical Society met on Dec. 1, 1971 at the Holiday Inn in West Plains.

Co-hosts for the meeting were Dr. and Mrs. C. W. Cooper and Dr. and Mrs. A. T. Walker.

Following the dinner, Dr. Brewster Harrington of Memphis, Tenn. gave a lecture on “Coronary Artery By-Pass Grafts.”

Those attending the meeting were Dr. and Mrs. Harrington; Dr. and Mrs. Jack Langevin, Salem, Ark.; Dr. and Mrs. Rollin Smith, Dr. and Mrs. M. L. Fowler and Dr. and Mrs. Jack Wiles of West Plains; Dr. and Mrs. C. W. Cooper of Thayer; Dr. and Mrs. A. T. Walker of Mammoth Spring, Ark.; Dr. and Mrs. Joe Wall of Houston; Dr. and Mrs. C. F. Smith of Willow Springs; Dr. and Mrs. James Hasek and Dr. Martin Hasek of Mountain Grove; and Mr. Tom Hugnes, University of Missouri Preceptee.

A business meeting was held and officers and delegates for 1972 were elected. New officers are Drs. Jack N. Wiles, President; A. T. Walker, President-Elect; and W. T. Morgan, Jr., Secretary-Treasurer. Elected to the Board of Censors were Drs. Joe Wall, Martin Hasek and A. T. Walker.

The following were elected as Delegates to the MSMA: Drs. James Hasek and Alternate, Martin Hasek, Wright County; Joe Wall and Alternate Joe Spears, Texas County; C. W. Cooper and Alternate A. T. Walker, Oregon County; C. F. Smith and Alternate, Marvin Gentry, Douglas County; Jack N. Wiles and Alternate R. H. Smith, Ozark County; and W. T. Morgan and Alternate Amos Coffee, Howell County.

Jack N. Wiles, M.D., *Secretary*

Pre-Sate® **(chlorphentermine hydrochloride)**

Caution: Federal law prohibits dispensing without prescription.

Indications

Pre-Sate (chlorphentermine hydrochloride) is indicated in exogenous obesity, as a short term (i.e. several weeks) adjunct in a regimen of weight reduction based upon caloric restriction.

Contraindications

Glaucoma, hyperthyroidism, pheochromocytoma, hypersensitivity to sympathomimetic amines, and agitated states. Pre-Sate (chlorphentermine hydrochloride) is also contraindicated in patients with a history of drug abuse or symptomatic cardiovascular disease of the following types: advanced arteriosclerosis, severe coronary artery disease, moderate to severe hypertension, or cardiac conduction abnormalities with danger of arrhythmias. The drug is also contraindicated during or within 14 days following administration of monamine oxidase inhibitors, since hypertensive crises may result.

Warnings

When weight loss is unsatisfactory the recommended dosage should not be increased in an attempt to obtain increased anorexigenic effect; discontinue the drug. Tolerance to the anorectic effect may develop. Drowsiness or stimulation may occur and may impair ability to engage in potentially hazardous activities such as operating machinery, driving a motor vehicle, or performing tasks requiring precision work or critical judgment. Therefore, such patients should be cautioned accordingly. Caution must be exercised if Pre-Sate (chlorphentermine hydrochloride) is used concomitantly with other central nervous system stimulants. There have been reports of pulmonary hypertension in patients who received related drugs.

Drug Dependence Drugs of this type have a potential for abuse. Patients have been known to increase the intake of drugs of this type to many times the dosages recommended. In long-term controlled studies with the high dosages of Pre-Sate, abrupt cessation did not result in symptoms of withdrawal.

Usage In Pregnancy The safety of Pre-Sate (chlorphentermine hydrochloride) in human pregnancy has not yet been clearly established. The use of anorectic agents by women who are or who may become pregnant, and especially those in the first trimester of pregnancy, requires that the potential benefit be weighed against the possible hazard to mother and child. Use of the drug during lactation is not recommended. Mammalian reproductive and teratogenic studies with high multiples of the human dose have been negative.

Usage In Children Not recommended for use in children under 12 years of age.

Precautions

In patients with diabetes mellitus there may be alteration of insulin requirements due to dietary restrictions and weight loss. Pre-Sate (chlorphentermine hydrochloride) should be used with caution when obesity complicates the management of patients with mild to moderate cardiovascular disease or diabetes mellitus, and only when dietary restriction alone has been unsuccessful in achieving desired weight reduction. In prescribing this drug for obese patients in whom it is undesirable to introduce CNS stimulation or pressor effect, the physician should be alert to the individual who may be overly sensitive to this drug. Psychologic disturbances have been reported in patients who concomitantly receive an anorectic agent and a restrictive dietary regimen.

Adverse Reactions

Central Nervous System: When CNS side effects occur, they are most often manifested as drowsiness or sedation or overstimulation and restlessness. Insomnia, dizziness, headache, euphoria, dysphoria, and tremor may also occur. Psychotic episodes, although rare, have been noted even at recommended doses. **Cardiovascular:** tachycardia, palpitation, elevation of blood pressure. **Gastrointestinal:** nausea and vomiting, diarrhea, unpleasant taste, constipation. **Endocrine:** changes in libido, impotence. **Autonomic:** dryness of mouth, sweating, mydriasis. **Allergic:** urticaria. **Genitourinary:** diuresis and, rarely, difficulty in initiating micturition. **Others:** Paresthesias, sural spasms.

Dosage and Administration

The recommended adult daily dose of Pre-Sate (chlorphentermine hydrochloride) is one tablet (equivalent to 65 mg chlorphentermine base) taken after the first meal of the day. Use in children under 12 not recommended.

Overdosage

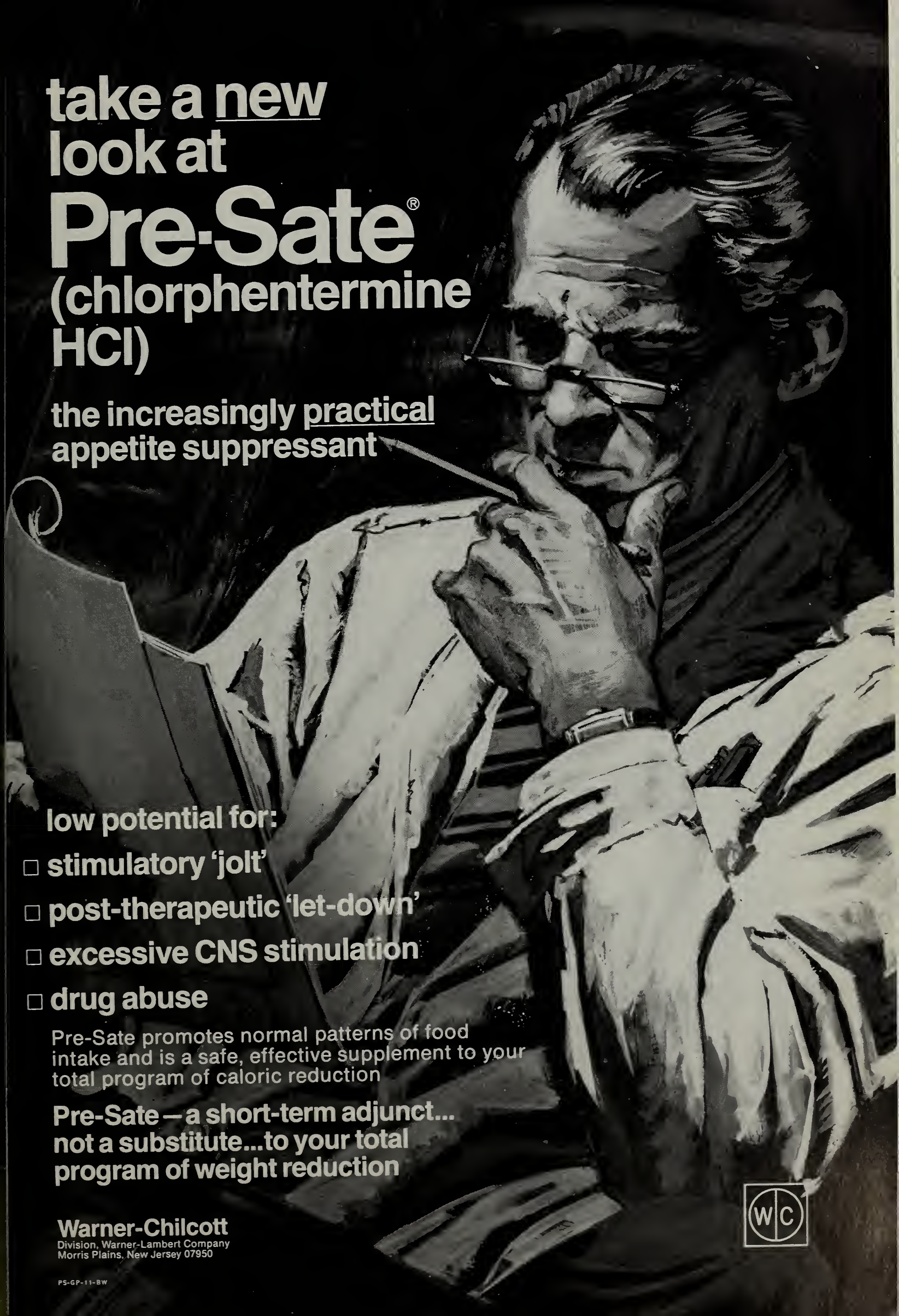
Manifestations: Restlessness, confusion, assaultiveness, hallucinations, panic states, and hyperpyrexia may be manifestations of acute intoxication with anorectic agents. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension, or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma.

Management: Management of acute intoxication with sympathomimetic amines is largely symptomatic and supportive and often includes sedation with a barbiturate. If hypertension is marked, the use of a nitrate or rapidly acting alpha-receptor blocking agent should be considered. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendations in this regard.

How Supplied

Each Pre-Sate (chlorphentermine hydrochloride) tablet contains the equivalent of 65 mg chlorphentermine base; bottles of 100 and 1000 tablets.

Full information is available on request.



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M.D. News *Spotlight*

DR. DIMOND'S CHINA ARTICLES APPEAR IN *SATURDAY REVIEW* AND AMA JOURNAL

One of the world's major adventures in health care is taking place in China, the *Saturday Review* (Dec. 18, 1971 issue) reports in an article, "More Than Herbs and Acupuncture," by Dr. E. Grey Dimond, provost for health sciences at the University of Missouri-Kansas City and Distinguished Professor of Medicine at UMKC's new medical school.

Doctor Dimond writes that by combining Western-style medicine with traditional medicine and requiring them to practice together as well as be utilized in medical, pharmacy and nursing schools, the Chinese government "has produced a giant health care and educational experiment."

In September, 1971, Doctor and Mrs. Dimond together with Dr. and Mrs. Paul Dudley White, Dr. and Mrs. Samuel Rosen and Dr. and Mrs. Victor Sidel became the first American physicians in 25 years to visit China as invited guests of the Chinese Medical Association.

Doctor Dimond also has written of his observations in a recent issue of the *Journal of the American Medical Association (JAMA).* Reports of his trip and comments also appeared in the major newspapers.

NEWSWEEK REPORTS STUDY BY DR. LODWICK AND HIS TEAM OF RADIOLOGISTS

An article about Dr. Gwilym S. Lodwick and a team of radiologists from the University of Missouri-Columbia Medical Center appeared in the Dec. 27, 1971 issue of *Newsweek.*

The article, titled "The Computer as a Doctor," reports a preliminary study of a computer program for actual diagnosis and treatment of certain heart diseases solely on the basis of patients' x-rays.

Doctor Lodwick and his team applied the concept of computerized x-ray interpretation to patients suspected of having rheumatic heart disease. He then decided to test the program in direct competition with ten specialist radiologists, including himself. According to Doctor Lodwick, "Accuracy was 73% for the computer and 62% for the group of radiologists."

The Missouri group was quick to emphasize the preliminary nature of the study. However, *Newsweek* reports that "many radiologists foresee the eventual use of computers in many areas of radiology, including interpretation of mass screening x-ray examinations and the early diagnosis of conditions invisible to human radiologists."

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MAFP Installs Dr. W. C. Gray as President, Honors Dr. W. C. Allen at Annual Assembly

Dr. Walter C. Gray *(right)* is installed as President of the Missouri Academy of Family Physicians by the National President, Dr. J. Jerome Wildgen at the 23rd Annual President's Banquet at Tan-Tar-A resort.

Dr. William C. Allen *(left)* receives the 1972 MAFP Citation Award for his contributions to the health field from Mr. Mac Cahal, retiring Executive Director of the American Academy of Family Physicians.

Dr. Walter C. Gray, St. Louis, was installed as the 25th President of the Missouri Academy of Family Physicians at the organization's 23rd Annual Scientific Assembly on Nov. 12-14, 1971 at Tan-Tar-A Resort on the Lake of the Ozarks.

A member of the Missouri Academy since 1950, Doctor Gray has served as Vice-President and as a member of the Board of Directors. He served as President of the St. Louis Academy in 1958. He succeeds Dr. R. Glenn Elliott of Kansas City.

Dr. J. Jerome Wildgen, President of the American Academy of Family Physicians, was a special guest and speaker at the meeting and served as installing officer at the President's Banquet.

Newly-installed officers, in addition to Doctor Gray, were Drs. Ben Koon, Bolivar, President-Elect; Lois C. Wyatt, St. Louis, Vice-President; Walter Jack Stelmach, Kansas City, and John T. Crowe, Cape Girardeau, Delegates to the AAFP; Ben Koon, Bolivar, and Stacey Long, Kansas City, Alternate Delegates. New members of the Board of Directors are Drs. C. W. Chastain, III, Farmington; Don E. Kuenzi, North Kansas City; and B. A. Moranville, Columbia.

Another highlight of the banquet was the presentation of the MAFP Distinguished Service Award to Dr. William C. Allen of Columbia for his contributions to the health field. Doctor Allen is associate coordinator for the Missouri Regional Medical Program and assistant medical director and associate professor of community health and medical practice at the Medical Center, University of Missouri-Columbia.

The outstanding postgraduate scientific education program was presented by the Education Committee of which Dr. John M. Haight of Kansas City is chairman. Medical students from the University of Missouri School of Medicine were guests of the Academy at the meeting.

Scientific Sessions Important to Every Physician!

114th MSMA ANNUAL SESSION

April 6-9, 1972 Kansas City Muehlebach Hotel

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Program Director

Alberto Benchimol, M.D., Director
Institute for Cardiovascular Diseases
Good Samaritan Hospital

Guest Speaker

Ronald H. Selvester, M.D., Professor of Medicine, University of Southern California School of Medicine, Los Angeles, California; Chief of Cardiology and Director of Biomathematics and ECG Research Group, Rancho Los Amigos Hospital, Downey, California

For Information Concerning the Program, Write to

Miss Mary Anne McInerny, Director
Dept. of Continuing Education Programs
American College of Cardiology
9650 Rockville Pike
Bethesda, Maryland 20014

New Members

Jerome A. Grunt, M.D. 24th & Gillham Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Grunt is a native of Newark, N. J., received his preliminary education at Rutgers University and his M.D. degree at Duke University in 1957. He specializes in pediatrics (endocrinology).

William H. Hervey, II, M.D., Wornall Rd. at 44th, Kansas City, has become a member of Jackson County Medical Society. Dr. Hervey is a native of Leavenworth, Kan., received his preliminary education at Westminster College and his M.D. degree at the University of Kansas in 1965. He specializes in anesthesiology.

Robert C. Pope, M.D., 23rd & R. D. Mize Rd., Independence, has become a member of Jackson County Medical Society. Dr. Pope is a native of Little Rock, Ark., received his preliminary education at the University of Arkansas and his M.D. degree at the University of Arkansas in 1958. He specializes in pathology.

James E. Rauch, M.D., 4711 Central, Kansas City, has become a member of Jackson County Medical Society. Dr. Rauch is a native of Kansas City, received his preliminary education at Rockhurst College and his M.D. degree at the University of Kansas in 1966. He specializes in psychiatry.

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In Memoriam

Shofstall, Charles K., M.D., Kansas City, a graduate of the University of Kansas, 1926; member Jackson County Medical Society; age, 73; died Nov. 28, 1971.

Husted, George W., M.D., Parma, a graduate of St. Louis University, 1928; member SEMO County Medical Society; age, 87; died Nov. 30, 1971.

Miksicek, John E., M.D., St. Louis, a graduate of Washington University, 1937; member St. Louis Medical Society; age, 59; died Dec. 6, 1971.

Byers, Philip L., M.D., Kansas City, a graduate of the University of Pennsylvania, 1937; member Jackson County Medical Society; age, 60; died Dec. 10, 1971.

Feierabend, Frank L., M.D., Kansas City, a graduate of St. Louis University, 1922; member Jackson County Medical Society; age, 74; died Dec. 11, 1971.

Meagher, Arthur J., M.D., St. Louis, a graduate of Washington University, 1944; member St. Louis County Medical Society; age, 50; died Dec. 12, 1971.

Schlenker, Lawrence, M.D., St. Louis, a graduate of St. Louis University, 1910; member St. Louis Medical Society; age, 97; died Dec. 14, 1971.

Tapp, Ernest M., M.D., Poplar Bluff, a graduate of Ohio State University, 1930; member Butler-Wayne-Ripley County Medical Society; age, 67; died Dec. 14, 1971.

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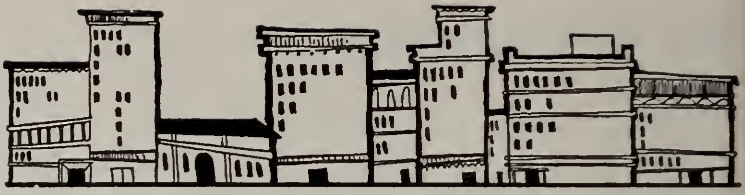

ST. LOUIS UNIVERSITY

Dr. Maurice Green

Dr. Maurice Green, professor of microbiology and director of the Molecular Virology Institute at the School of Medicine, was invited on behalf of President Nixon to the White House for the signing of the National Cancer Act of 1971 on Dec. 23, 1971. Doctor Green, an NIH career award fellow, is a leader in the molecular attack on cancer. His research program at the School of Medicine is concentrated on investigations of adenoviruses which produce cancer in hamsters and in tissue culture.

Dr. Ralph L. Biddy, assistant dean for Veterans Administration Affairs at the School of Medicine, was selected by the Association of Military Surgeons of the United States as the recipient of the 1971 John Shaw Billings Award at special ceremonies held in Washington on Dec. 7, 1971. The award was made by *Marc J. Musser,* M.D., president of the Association of Military Surgeons of the U. S. The award is given annually to a member of the association who is under 41 years of age and who possesses and demonstrates outstanding potential in the field of Executive Medicine. Doctor Biddy is chief of staff of the St. Louis Veterans Administration Hospital.

A two-day continuing medical education workshop titled "Clinical Approach to Allergic Disorders" will be presented for the first time by the St. Louis University School of Medicine on April 13-14. *Dr. Raymond G. Slavin,* associate professor of internal medicine and assistant professor of microbiology, is conference director. Course sessions will be held in Miller Hall of the St. Louis University Hospitals.

Purpose of the course is to provide the physician with a practical approach to the diagnosis and management of allergic disorders. Special emphasis will be placed upon the atopic diseases, bronchial asthma, allergic rhinitis, urticaria and atopic dermatitis. A number of teaching methods will be utilized including lectures, slide presentations, patient interviews and participation by the registrants in diagnostic techniques. Doctor Slavin will present an introduction to the course in clinical allergy and a discussion on skin allergies.

Physicians interested in attending should enroll by March 31, 1972. Further information may be sought by contacting *Mr. John Grellner,* director, St. Louis University Medical Center, Continuing Medical Education Programs, 1402 S. Grand Blvd., St. Louis 63104. Tuition fee is $50.

WASHINGTON UNIVERSITY

E. James Anthony, M.D., Blanche F. Ittleson professor of child psychiatry and head of the Division of Child Psychiatry at the School of Medicine, has been appointed to the Commission of the Association for Research in Nervous and Mental Diseases. The Association is a national professional organization whose Commission members are appointed on the basis of their outstanding contributions to research in neurology and psychiatry. He also has been named chairman of the Committee on Child Psychiatry for the Group for the Advancement of Psychiatry.

Haruhiko Ando, M.D., chief psychiatrist at the Central Hospital of Aichi Prefectural Colony, Japan, has been awarded a two-year grant of $28,910 by the Foundations' Fund for Research in Psychiatry (FFRP) for studies in Washington University School of Medicine's Division of Child Psychiatry.

Doctors Ando and Anthony will study the development of children in families where a parent (or both parents) is suffering from alcoholism. Doctor Anthony said the research is to determine if these children are presently disturbed, if they will become disturbed as they mature, if they eventually will become alcoholics themselves and what preventive steps can be taken.

Washington University School of Medicine has announced the election of 16 new members to Alpha Omega Alpha, national medical honorary society. The medical faculty and the senior class made their selection from among the 96 eligible students. For the first time at Washington University, two married couples have been elected from the same class. They are *Peter C. Brazy,* Menomonee Falls, Wisc., and *Jane Elmblade Brazy,* Greeley, Colo.; and *L. Michael Glode, Jr.,* Chadron, Neb., and *Mary Rose Glode,* Palatine, Ill. The Glodes attended the University of Nebraska as members of the same three-year premedical honors program.

AΩA recognizes outstanding scholarship and leadership in medicine and related fields and is considered the profession's most prestigious honor society.

Missouri electees are *Marc R. Hammerman,* Olivette; *Timothy L. R. Holekamp,* Kirkwood; and *Michael B. Sheehan,* Kansas City.

All are scheduled to receive the Doctor of Medicine degree in May, 1972.

UNIVERSITY OF MISSOURI-COLUMBIA

An eight-man study group selected by the World Health Organization to make recommendations for medical education planning in developing nations includes *Dr. Donald A. Senhauser,* professor of pathology at the University Medical Center.

Doctor Senhauser is the only representative from the United States. Other committee members were selected from medical schools in India, The Netherlands, Scotland, Canada and Switzerland. Besides physicians, the group includes the president of the international medical students organization, a young Scotsman.

Dr. Richard E. Doyle, director of laboratory animal medicine at the Medical Center, is one of 12 leaders in scientific fields recently asked to serve on the National Advisory Research Resources Council of the National Institutes of Health. His appointment is for the period 1971-1974.

In addition to its members selected from the fundamental and medical sciences, the Council also includes the Director of NIH as chairman, the chief medical officer of the Veterans Administration, and a medical officer designated by the Secretary of Defense, who serve as ex-officio members.

The Council reviews, advises and makes recommendations concerning laboratory animal resources, General Clinical Research Centers and special research resources programs. Members review applications for grants-in-aid relating to research and training in these programs and recommend to the director of NIH approval of those proposals which merit federal support.

Accreditation of the speech and hearing program at the University of Missouri-Columbia Medical Center has been granted by the Professional Services Board of the American Board of Examiners in Speech Pathology and Audiology, *Dr. Samuel D. Richards,* chief of the service, has announced.

The Medical Center's speech and hearing services include hearing evaluations, consultation for selection of hearing aids, speech evaluation and therapy for children and adults, for children with learning disabilities and for preschool children with severe hearing loss.

Mrs. Maudene Wheeler, speech pathologist and clinic supervisor, said that the speech and hearing program is one of three accredited programs in Central Missouri. The service is under the administration of the Department of Physical Medicine and Rehabilitation.

UNIVERSITY OF MISSOURI-KANSAS CITY

More than 100 cardiologists and cardiologic nurses attended a four-day national conference on "The Acute Myocardial Infarction—the First 24 Hours" at the University of Missouri-Kansas City in December.

Sponsored by the School of Medicine of the University and the UMKC Division for Continuing Education, the postgraduate program is the first in a series of continuing education seminars conducted in cooperation with Baptist Memorial Hospital, Kansas City General Hospital and Medical Center, Research Hospital and Medical Center, St. Luke's Hospital and COMPACT Project, Missouri Regional Medical Program.

Dr. J. G. B. Thurston, director of the Coronary Care Unit in Westminster Hospital, London, England, was among the visiting faculty of ten.

Comprising the host faculty were 16 doctors, including *Keith Averill, Hubert Bell, Paulo de Carvalho, James E. Crockett, Thomas Crouch, Mark Dodge, Kenneth Goetz, Morteza Jenab, Lynn Kindred, J. Tenbrook King, Ben D. McCallister, Richardson K. Noback, William A. Reed, Carl Strauss, Daniel B. Toubes, and Gerald Touhy.*

Continuing Education Coming Events

Feb. 7-8	**Symposium: Cardiac Auscultation** Postgraduate Medical Education K.U. School of Medicine, Kansas City, Kan. 66103
Feb. 16-17	**Orthopedic Conference** Continuing Education, M.U. School of Medicine Columbia 65201
Feb. 17-18	**Recent Advances in Emergency Room Medicine** Danciger Institute for Health Sciences Menorah Medical Center, Kansas City 64110
Feb. 25-26	**Missouri Regional Meeting, American College of Physicians** Washington University Medical Center St. Louis
March 6-8	**Symposium: Pediatrics** Postgraduate Medical Education K.U. School of Medicine, Kansas City, Kan. 66103
March 8-9	**Conference on Diabetes Mellitus** Continuing Education, M.U. School of Medicine Columbia 65201
March 20-22	**Symposium: Surgery** Postgraduate Medical Education K.U. School of Medicine, Kansas City, Kan. 66103
April 5-6	**Urology Seminar** M.U.-Columbia Medical Center and Extension Division and Kansas City General Hospital Plaza Inn, 45th & Main, Kansas City
April 10-12	**Symposium: Ophthalmology** Postgraduate Medical Education K.U. School of Medicine, Kansas City, Kan. 66103
April 17-19	**Symposium: Anesthesiology** Postgraduate Medical Education K.U. School of Medicine, Kansas City, Kan. 66103
April 19-20	**Cancer Chemotherapy Conference** Continuing Education, M.U. School of Medicine Columbia 65201

Missouri Internists to Hold Scientific Meeting

The American College of Physicians (ACP) will sponsor a scientific-educational meeting for specialists in internal medicine and related fields in Missouri on Feb. 25-26, 1972. The meeting will be held at Washington University Medical Center in St. Louis.

The Missouri Regional is one of 40 scientific-educational meetings the College is holding during the current academic year. The College has been holding the regional meetings annually since 1930.

The Missouri meeting is being planned under the direction of Thomas F. Frawley, M.D., St. Louis, ACP Governor for Missouri and Professor of Medicine and Chairman of the Department of Internal Medicine at St. Louis University School of Medicine.

For further information, write to Doctor Frawley in care of St. Louis University Hospital, 1325 S. Grand, St. Louis, Mo. 63104.

National Conference on Rural Health on March 16-17

"Partnership for Rural Health Care Development" will be the theme of the 25th National Conference on Rural Health on March 16-17 at the St. Francis Hotel in San Francisco.

B. J. Bass, M.D., Salem, is scheduled to be among the speakers on March 17. His subject will be "Use of Automated Devices in the Practice of Rural Medicine."

Conference goals will be to explore roles of health team members, to examine responsibilities of public and private sector for rural health care delivery systems, to review possible solutions for rural health care delivery systems and to assess the use of all resources in planning and implementing health care delivery systems.

The Conference is sponsored by the AMA Council on Rural Health. There is no registration fee.

MSMA members interested in attending the meeting may obtain additional information by writing to the Council on Rural Health, American Medical Association, 535 N. Dearborn St., Chicago, Ill. 60610.

Missouri Pathologists' Meeting Scheduled for April 8

The Missouri Society of Pathologists, in cooperation with the Missouri State Medical Association and supported in part by the National Foundation-March of Dimes, will present a one-day program on *Medical Genetics* on April 8, 1972 at the Muehlebach Hotel in Kansas City. Participants will include Harold E. Cross, M.D., Ph.D. and R. Rodney Howell, M.D. from the Johns Hopkins Hospital, and Raymond J. Caffrey, M.D. of Kansas City. For further information, write to O. D. Smith, M.D., 6601 Rockhill Rd., Kansas City, Mo. 64131.

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Missouri Medicine in Review

FORTY YEARS AGO

Dr. C. Jeff Miller of New Orleans delivered the tenth annual Hodgen Lecture under the auspices of the St. Louis Surgical Society and the Medical Fund Society at the St. Louis Medical Society Auditorium on January 12. Title of his lecture was "A Clinical Consideration of Hysterectomy with a Brief Note on Some Points of Technic." He is professor of gynecology at Tulane University School of Medicine. The lectures have been presented for the last ten years in commemoration of Dr. John T. Hodgen, one of St. Louis's most distinguished surgical heritages. Doctor Hodgen came into prominence during the Civil War and his career closed in 1882. From 1865 until his death, he was professor of surgery in the St. Louis Medical College.

Dr. C. P. Hampton was appointed health commissioner of University City to succeed Dr. Leo P. FitzGerald, who resigned. Doctor Hampton was chief resident physician at St. Louis County Hospital.

Dr. Horace W. Carle, St. Joseph, was elected president of the Missouri State Board of Health for 1932, it was announced on January 11. Other officers elected are vice-president, Dr. E. Sanborn Smith, Kirksville; secretary and health commissioner, Dr. James Stewart, Jefferson City. Members of the Board are Drs. W. A. Clark, Jefferson City; H. L. Kerr, Crane; H. S. Gore, Linn; and Francis M. McCallum, Kansas City.

TWENTY-FIVE YEARS AGO

J. A. Ossman, M.D. was elected president and chief-of-staff at St. Mary's Hospital in Jefferson City at a staff meeting on December 11. Other officers elected were Drs. R. P. Dorris, vice-president; E. R. Bohrer, secretary-treasurer; and Marshall W. Kelly, H. W. Maxey and F. W. Gillham, executive committee members.

The Randolph-Monroe-Chariton County Medical Society met in Moberly with 19 members and their wives present. Guests were Dr. and Mrs. Howard B. Goodrich and Dr. and Mrs. W. F. Francka of Hannibal and Mr. Raymond McIntyre, St. Louis. Drs. Miller and Eggleston, representing the Macon County Medical Society, officially voted to hyphenate with the Randolph-Monroe-Chariton County Medical Society. It was voted unanimously to accept them and the official name of the society thus formed was decided by vote to be the Chariton-Macon-Monroe-Randolph County Medical Society. Newly elected officers were Drs. Avery P. Rowlette, Moberly, President; D. E. Eggleston, Macon, Vice-President; and F. A. Barnett, Paris, Secretary-Treasurer.

TEN YEARS AGO

Alumni and faculty members at Washington University School of Medicine have been elected to Alpha Omega Alpha, honorary society which recognizes scholarship and leadership in medicine and related fields. Dr. A. Norman Arneson, professor of clinical obstetrics and gynecology and associate professor of clinical radiology, and Dr. Frank McDowell, associate professor of clinical surgery, were elected as alumni members along with Dr. Richard Mason, vice-president for research for the American Cancer Society, Inc. Dr. Margaret G. Smith, professor of pathology, was elected faculty member. Dr. Eli Robins, professor of psychiatry, was honored for membership by the Harvard University chapter. The Washington University chapter is the seventh oldest in the country, dating from 1905.

Dr. Goronwy Owen Broun, professor of internal medicine at St. Louis University School of Medicine, was named dean of the school by the Very Reverend Paul C. Reinert, S.J., University President, on December 29. Doctor Broun assumed the duties of dean on January 1, succeeding Dr. James W. Colbert, Jr.

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Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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Outstanding Annual MSMA Session Opens April 6

The Honorable Durward G. Hall, M.D., member of Congress from Missouri, will be the speaker at the general luncheon meeting of the Missouri State Medical Association on Saturday, April 8, during the 114th Annual Session at the Muehlebach Hotel in Kansas City.

With medical legislation much in the news from the nation's Capital City, Dr. Hall will be able to bring members of the Association and their wives who attend the luncheon the most up-to-date information concerning the situation in Washington.

Dr. Hall, from Springfield, represents the Seventh Congressional District of Missouri. He is a graduate of Drury College, Springfield, and Rush Medical College of the University of Chicago.

A general surgeon, Dr. Hall is a Diplomate of the American Board of Surgery and a Fellow of the American College of Surgery. He is a member of the Missouri State Medical Association and served as a Missouri delegate to the American Medical Association.

He is a member of the House Armed Services Committee and of the Special Committee on the Organization of Congress.

Dr. Hall has introduced his own bill into Congress which calls for catastrophic health insurance protection for Americans.

******

Durward G. Hall, M.D.

All signs point toward the 114th Annual Session of MSMA being the biggest in Association history.

Many statewide specialty organizations are sponsoring programs and holding meetings in conjunction with the MSMA meeting.

Participating Specialty groups include the Missouri State Allergy Association, the Missouri Dermatological Society, Inc., The Missouri Society of Internal Medicine, the Missouri Chapter of the American College of Physicians, The Missouri OB-GYN Society, the Missouri Ophthalmological Society, Inc., The Missouri Society of Pathology, The Missouri Chapter of the American Academy of Pediatrics, the Missouri Federation of Urologists, the Missouri Radiological Society, the Missouri Psychiatric Association, the Missouri Academy of Psychiatry, the Missouri State Surgical Society, the Missouri Association of Neurological Surgeons.

Special luncheons on Friday are being sponsored by the Missouri University Medical Alumni and the Missouri Obstetrical and Gynecological Society.

On Saturday, in addition to the general luncheon featuring Dr. Hall as speaker there will be a Fifty-Year Club Luncheon, a luncheon for members of the Missouri Ophthalmological Society, Inc., and one for members of the Missouri Association of Neurological Surgeons.

Three meetings of the House of Delegates are scheduled during the 114th Annual Session. The first is at 1:30 p.m. on Thursday, April 6; the second at 4 p.m. on April 7 and the third and final session at 7:30 a.m. on Sunday, April 9.

Handbooks for all delegates are scheduled to be mailed the first week in March.

Among the highlights of the 114th Annual Session of the Missouri State Medical Association will be three general sessions, one on Friday, April 7, and two on Saturday, April 8.

The first general session, at 9 a.m. on Friday, April 7, will be on "Peer Review." The moderator for this session will be Hector W. Benoit, Jr., M.D., Kansas City. The session is under sponsorship of the Health Care Foundation of Missouri.

The second general session will be at 9 a.m. on Saturday, April 8, and will cover the subject: "Comparative Costs of Medical Care." The session will be moderated by Lawrence W. O'Neal, M.D., St. Louis. Participants include Mr. Paul Sanders of St. Louis who will discuss "The Patients' Cost of Care, Direct and Indirect." Dr. O'Neal will discuss "Contracting, Negotiating, and Licensing Delivers the Dollars to the High Cost Systems and Retards Ambulatory Care Center Growths." C. O. Vermillion, M.D., St. Louis, will discuss "If Ambulatory Centers Develop, Hospital Costs will Rise." Finally, Richard Danis, M.D., St. Louis, will discuss the topic "The Difference in Cost of the Same Care Described in Terms of Results."

The final general session of the Association, at 2:30 p.m., Saturday, will deal with the subject "Health Maintenance Organizations (HMO's)" with William D. Hoadley, M.D., Kansas City, as moderator. Participants along with their topics include: C. Stanley Custer, M.D., Marshfield, Wisconsin, "Research, Development and Operation of HMO"; Holman R. Wherritt, M.D., Kansas City, who will discuss "Federal Viewpoint" on HMO's.

MSMA News

Legislative Session Near Halfway Mark

The second session of the 76th General Assembly moved toward the halfway mark in late February with much work remaining. The session will end on the final day of April.

Both houses of the General Assembly faced long calendars of bills already approved by committees as they returned to work on Monday, February 21, after a weekend at home.

The House Perfection Calendar included more than 220 bills and more than 100 bills were on the Senate Perfection Calendar. Perfection is generally the principal debate time in the initiating house and bills may be amended during perfection, thus making it a time consuming effort.

The following is an updating of the status of major bills listed in the February issue of **Missouri Medicine.**

As of February 21, no hearing had been held on either of the bills aimed at putting Blue Cross and Blue Shield in Missouri under the direction of the State Division of Insurance with a premium tax. Whether any hearing would be scheduled on either HB 583 or SB 616 is uncertain.

A hearing was held on Tuesday night, February 15, in the House Public Health Committee for HB 1093 which would allow chiropractors to practice physiotherapy including light, heat, sound and water. The bill was opposed in testimony by MSMA, by a number of chiropractors and by a number of physical therapists. Only the sponsor testified in favor of the bill. As of February 21, the Committee had not taken a vote on the bill.

The House Judiciary Committee approved a measure which would make changes in the statute of limitations in malpractice cases allowing the statute to run five years from the act in all cases other than those involving foreign objects and two years from discovery in foreign object cases. The bill was 130 bills down on the House Perfection Calendar as of February 21.

The Senate Judiciary Committee approved SB 436 which would lower the intoxication definition for suspected drunken drivers from .15 to .10 and the bill was approximately 65 bills down on the Senate Perfection Calendar. Another bill of interest, SB 508 which would license, regulate and set standards for private and public owned ambulances was approved by the Senate Public Health Committee and is approximately 100 bills down on the Senate Perfection Calendar.

The status of a few other bills of interest to the medical profession.

HB 1325 would require the state to pay a third of the amount by which costs exceed receipts of city, county, district or nonprofit publicly supported hospitals is on the House Perfection Calendar.

HB 1261 which would allow full paying patients at the State Cancer Hospital after indigent and part pay patients had been accepted has passed the House and awaits a hearing in the Senate.

HB 1032 which would provide a $4,000 per year subsidy for Missouri students attending the two private medical or two private osteopathic schools is on the House Perfection Calendar.

HB 1255 which adds rubella and rubeola to required vaccine list for school attendance has been approved by House and awaits a hearing in the Senate.

Information concerning any of the legislation mentioned in this report or any other bills before the General Assembly may be obtained by contacting the MSMA headquarters office in Jefferson City.

Hospital Meet on March 9 in Jefferson City

Members of the Missouri State Medical Association are reminded that time still remains to attend the "Large and Small Hospital Organization for the '70s" conference to be held at the Ramada Inn, Jefferson City on March 9. MSMA is a sponsoring organization along with the Missouri Association of Osteopathic Physicians and Surgeons, the Missouri Hospital Association, the Missouri Regional Medical Program and the Bi-State Regional Medical Program.

Hospitals are being urged to send their board chairmen, chiefs of staff and administrator. There is a $60 package fee for the three hospital representatives. There will be a $25 fee for individual registrants. The fee includes a luncheon and a banquet.

Individual physicians are invited to attend. A copy of the program was printed in the MSMA News section of the February issue of **Missouri Medicine.** Programs including registration blanks may be secured from the MSMA Office.

Scientific Session Aboard Cruise Ship Planned in November

The Missouri State Medical Association will sponsor a scientific session in conjunction with a Caribbean Cruise aboard the cruise ship M/S Boheme from November 11 through November 18, 1972. The tour will include jet air transportation from both St. Louis and Kansas City to Miami to board the ship.

Ports of call for the ship include Puerto Plata, Dominican Republic; St. Thomas; San Juan, Puerto Rico; and Cap Haitien, Haiti.

All members of the Missouri State Medical Association will be receiving information shortly concerning the cruise as well as the medical seminar.

A Night to Remember!

The Honor of the Presence of

All Members of the MSMA

And Their Wives

Is Requested at the

Annual Presidents' Banquet

In Honor of Past-Presidents
Of The Missouri State Medical Association

on

Saturday, April 8, 1972

in the

Ballroom of the Hotel Muehlebach

The Banquet Will Feature
Entertainment by the

Greene County "Singing Doctors"

And Dancing to the Music of

Warren Durrett and His 17-Piece Orchestra

Cocktails at 6:30 p.m.   Dinner at 7:15 p.m. $12.50 Per Person

A Meeting to Remember!

The MSMA

114th ANNUAL SESSION

April 6-9, 1972

Muehlebach Hotel   Kansas City

Preliminary Program

114th Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

Muehlebach Hotel, Kansas City **April 6-9, 1972**

Thursday, April 6

11:00 AM Registration of Delegates.
1:30 PM House of Delegates Meeting, opening session.
3:30 PM Reference Committee Meetings.

Friday, April 7

8:00 AM Registration.
9:00 AM General Session. *Peer Review.*
Moderator: Hector W. Benoit, Jr., M.D., Kansas City.
(Participants to be announced.)
Sponsored by the Health Care Foundation of Missouri.
10:30 AM Intermission to view exhibits.
*11:00 AM *Abdominal Trauma*
Moderator: Andrew McCanse, M.D., Kansas City.
Panel Participants:
  John A. Collins, M.D., St. Louis
  W. Kendall McNabney, M.D., Kansas City.
Sponsored by Missouri State Surgical Society.
*11:00 AM *Symposium on Cardiovascular Disease.*
Moderator: E. K. Burk, M.D., North Kansas City
  Understanding Basic Management of Acute Myocardial Infarction, Robert Paine, M.D., Chief of the Department of Medicine, St. Luke's Hospital, St. Louis.
  Understanding the Management of Heart Failure, Ben D. McCallister, M.D., University of Missouri-Kansas City.
Sponsored by the Missouri Society of Internal Medicine and the Missouri Chapter, American College of Physicians.
*11:00 AM *Symposium on Gastrointestinal Disease.*
Moderator: Alfred D. Biggs, Jr., M.D., Kansas City.
  New Diagnostic Techniques in Gastrointestinal Disease, Burnell Landers, M.D., University of Missouri-Kansas City.
  Controversies About Duodenal Ulcer.
    Thomas P. O'Farrell, M.D. and Robert D. Wilber, M.D., University of Kansas School of Medicine and University of Missouri-Kansas City.
Sponsored by the Missouri Society of Internal Medicine and the Missouri Chapter, American College of Physicians.
*11:00 AM *Perinatal Mortality Conference.*
Moderator: William C. Mixson, M.D., Kansas City.
  Panel Participants:
    Richard A. Guthrie, M.D., Columbia.
    Robert C. Rosan, M.D., St. Louis.
    Robert L. Newman, M.D., Kansas City.
Sponsored by the Missouri Obstetrical and Gynecological Society.
*11:00 AM *Hyperactive Child—Diagnosis and Treatment.*
Moderator: Roy E. Wilson, M.D., Springfield.
(Participants to be announced.)
Sponsored by Missouri Academy of Psychiatry.
12:30 PM Missouri University Alumni Luncheon.
Missouri Obstetrical and Gynecological Society Luncheon.
  James P. Youngblood, M.D., Kansas City, will present the Maternal Mortality Report.
* 2:00 PM *Abdominal Trauma.* (Continued)
Moderator: Lawrence Evans, M.D., Kansas City.
  Panel Participants:
    John Ochsner, M.D., New Orleans, La.
    Franklin L. Mitchell, M.D., Columbia.
Sponsored by Missouri State Surgical Society.

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* Concurrent Sessions.

* 2:00 PM *Symposium on Endocrinology.*
Moderator: J. H. Morris, Jr., M.D., Kansas City.
Thyroid Tests—1971, Garrett A. Hagen, M.D., Veterans Administration Hospital, St. Louis.
Evidence that Insulin Insufficiency is Related to the Complications of Diabetes, Charles Kilo, M.D., Washington University.
Sponsored by the Missouri Society of Internal Medicine and the Missouri Chapter, American College of Physicians.

* 2:00 PM *Symposium on Neurology.*
Moderator: James W. Neumann, M.D., Kansas City
Differential Diagnosis of Coma, Violet B. Matovich, M.D., Chief of Neurology, VA Hospital, Kansas City.
Evaluation and Management of Headache, Fred D. Fowler, M.D., University of Missouri-Kansas City.
Sponsored by the Missouri Society of Internal Medicine and the Missouri Chapter, American College of Physicians.

2:00 PM *The Iowa 500: Mania, Depression, Schizophrenia and Suicide,* George Winokur, M.D., Head of the Department of Psychiatry, State University of Iowa School of Medicine, Iowa City.
Moderator: Edwin D. Wolfgram, M.D., St. Louis.
Sponsored by the Missouri Psychiatric Association.

* 2:00 PM *Symposium on Asthma, Diagnosis and Treatment.*
Moderator: Orval R. Withers, M.D., Kansas City, Kan.
Panel Participants:
Raymond G. Slavin, M.D., St. Louis University School of Medicine, St. Louis.
Elliott F. Ellis, Chief, Pediatric Allergy Department, National Jewish Hospital, Denver.
Robert G. Lovell, M.D., University of Michigan Medical Center, Ann Arbor.
Lloyd A. Hollinger, M.D., Medical Director, Pulmonary Laboratory, Baptist Memorial Hospital, Kansas City.
Orval R. Withers, M.D., Clinical Professor of Medicine Emeritus, University of Kansas School of Medicine, Kansas City, Kan.
Ralph Hale, M.D., Immediate Past-President, American College of Allergists, Wichita, Kan.
Sponsored by Missouri State Allergy Association.

3:30 PM Intermission to view exhibits.
4:00 PM House of Delegates, second session.
5:30 PM Missouri State Medical Foundation Annual Meeting.
5:30 PM Missouri State Allergy Association Dinner Meeting.
6:00 PM Reference Committee Meetings.
6:30 PM Dinner Meetings:
Missouri Academy of Psychiatry
Missouri Radiological Society
Missouri Federation of Urologists
Missouri Psychiatric Association—Guest Speaker, Edward Busse, M.D., President, American Psychiatric Association.
Missouri State Surgical Society—Top of the Tower, *Surgical Intensive Care,* John Collins, M.D., St. Louis.

Saturday, April 8

8:00 AM Registration.
9:00 AM *Comparative Costs of Medical Care.*
Moderator: Lawrence W. O'Neal, M.D., St. Louis.
Participants:
The Patients' Costs of Care, Direct and Indirect, Mr. Paul Sanders, Consultant on Neighborhood Health Centers, ARCH, St. Louis.
Contracting, Negotiating, and Licensing Delivers the Dollars to the High Cost Systems and Retards Ambulatory Care Center Growths, Dr. O'Neal.
If Ambulatory Centers Develop, Hospital Costs Will Rise, C. O. Vermillion, M.D., St. Louis.
The Difference in Cost of the Same Care Described in Terms of Results, Richard Danis, M.D., St. Louis.
10:30 AM Intermission to view exhibits.

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* Concurrent Sessions.

*11:00 AM *Pulmonary Problems in Surgical Patients,* Gerald F. Tuohy, M.D., St. Luke's Hospital, Kansas City.
Coronary By-Pass Operations, William A. Reed, M.D., St. Luke's Hospital, Kansas City.
Moderator: Hugh E. Stephenson, M.D., Columbia.
Sponsored by Missouri State Surgical Society.

*11:00 AM *Symposium on Infectious Diseases.*
Moderator: Robert S. Mosser, M.D., Kansas City
Mycoplasma Infections: Recognition and Treatment, Chien Liu, M.D., Head of the Section of Infectious Diseases, University of Kansas Medical Center.
Infectious Mono, E.B. Virus and Neoplasma, Douglas W. Voth, M.D., Section of Infectious Diseases, University of Kansas Medical Center.
Sponsored by Missouri Society of Internal Medicine and Missouri Chapter, American College of Physicians.

11:00 AM *Pediatric Urinary Tract Infections—Diagnostic and Therapeutic Implications.*
Moderator: Richard D. Blim, M.D., Kansas City.
Jointly sponsored by
Missouri Federation of Urologists, Missouri Radiological Society and Missouri Chapter, American Academy of Pediatrics.
Panel Participants:
Donald R. Germann, M.D., Pediatric Radiologist, Kansas City.
Stanley Hellerstein, M.D., Pediatrician, Kansas City.
Thomas M. Holder, M.D., Pediatric Surgeon, Kansas City, Kan.

*11:00 AM *Symposium on Carotid Occlusive Disease,* Thomas P. Kearns, M.D., Mayo Clinic, Rochester, Minn.
Moderator: Robert C. Drews, M.D., St. Louis.
(Other Participants to be announced.)
Sponsored by Missouri Ophthalmological Society, Inc.

12:30 PM MSMA General Luncheon—The Honorable Durward G. Hall, M.D., Springfield, Member of the U.S. Congress.
Fifty-Year Club Luncheon.
Missouri Ophthalmological Society, Inc., Luncheon.
Missouri Association of Neurological Surgeons Luncheon.

* 2:30 PM *Health Maintenance Organizations (HMO's).*
Moderator: William D. Hoadley, M.D., Kansas City.
Participants:
Research, Development and Operation of HMO, C. Stanley Custer, M.D., Marshfield Clinic, Marshfield, Wis.
Federal Viewpoint, Holman R. Wherritt, M.D., Regional Health Director, Department of HEW, Kansas City.

* 2:30 PM *The Retinopathy of Sarcoidosis,* Thomas P. Kearns, M.D., Mayo Clinic, Rochester, Minn.
Moderator: Robert C. Drews, M.D., St. Louis.
Sponsored by Missouri Ophthalmological Society, Inc.

2:30 PM *Skin Changes in Pregnancy,* Guinter Kahn, M.D., Denver, Colo.
Moderator: Donald L. Fuhrman, M.D., Kansas City
Sponsored by Missouri Dermatological Society, Inc.

4:00 PM Intermission to view exhibits.
5:00 PM St. Louis University Medical Alumni Cocktail Party.
5:00 PM Washington University Medical Alumni Cocktail Party.
6:00 PM Missouri Dermatological Society, Inc., Dinner.
6:30 PM Social Hour for those Attending Banquet.
7:15 PM Annual Banquet in Honor of Past-Presidents.

Sunday, April 9

7:30 AM House of Delegates, breakfast and final session.

MEETINGS TO BE HELD IN CONJUNCTION WITH THE MSMA 114TH ANNUAL SESSION

(**Please Note:** Although the following meetings are a part of the MSMA Annual Session program, they are printed separately for clarity. All members of the MSMA are invited to attend the following meetings.)

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* Concurrent Sessions.

Annual Meeting

MISSOURI STATE ALLERGY ASSOCIATION

Friday, April 7, 1972

10:30 AM *Clinical Asthma.* Room 362.
Robert E. Bolinske, M.D., St. Louis
Clement J. Sullivan, M.D., St. Louis.
Mr. Robert John Dockhorn, Shawnee Mission, Kan.
Pat A. Barelli, M.D., Kansas City.
12 NOON Adjourn for Missouri State Medical Association Luncheon.
2:00 PM *Symposium on Asthma.* Burgundy Room.
4:00 PM Business Meeting (If not completed at 10:30 AM). Room 362.
5:30 PM Cocktails, Dinner. (No scientific program.) Please bring your wives. Room 362.

Annual Meeting

MISSOURI DERMATOLOGICAL SOCIETY, INC.

Saturday, Sunday, April 8-9, 1972

This annual meeting will be held in conjunction with the Missouri State Medical Association Annual Session. (Saturday session—Burgundy Room, Muehlebach Hotel. Sunday session—Kansas City General Hospital.)

MISSOURI SOCIETY OF PATHOLOGY*

Program on Medical Genetics

Saturday, April 8, 1972

8:00 AM Registration—Towers 21-22. Registration Fee, $10.00.
9:00 AM *Introduction and Molecular Biology,* Raymond J. Caffrey, M.D., Pathologist, Research Hospital, Kansas City.
9:30 AM *Classical Genetics (Mendelism),* Harold E. Cross, M.D., Ph.D., Resident and Fellow in Ophthalmology, Wilmer Institute, Johns Hopkins Hospital.
10:15 AM Coffee Break.
10:30 AM *Recessive Disease,* R. Rodney Howell, M.D., Associate Professor of Pediatrics, Johns Hopkins Hospital.
11:15 AM *Dominant and Multifactorial Disease,* Harold E. Cross, M.D.
12:00 NOON Lunch.
1:30 PM *Chromosomal Disease,* Raymond J. Caffrey, M.D.
2:15 PM *Laboratory Aspects of Genetic Disease Including Use of Amniocentesis,* R. Rodney Howell, M.D.
3:00 PM Coffee Break.
3:15 PM *Laboratory Aspects . . .* (Continued).
3:45 PM *Genetic Counseling and Future of Medical Genetics,* Harold E. Cross, M.D.
4:30 PM Panel Discussion.

First Annual Convention

MISSOURI PSYCHIATRIC ASSOCIATION

Friday, April 7

Lido Room

1:30 to 2:00 PM Short paper of primary interest to Psychiatrists.
2:00 to 3:30 PM *Suicide and Depression,* George Winokur, M.D., Department of Psychiatry, State University of Iowa School of Medicine.
This program of general interest to all physicians.
3:30 to 4:00 PM Short paper of primary interest to Psychiatrists.
4:00 to 4:30 PM Business Meeting.
All sessions to be held in the Lido Room.
6:00 PM Social Hour and Banquet. (Room to be assigned.)
Guest Speaker: Ewald Busse, M.D., President, American Psychiatric Association.

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* In cooperation with the Missouri State Medical Association and supported in part by the National Foundation—March of Dimes.
Registrants who are members of the Missouri Society of Pathology, as well as non-members, are invited to register for the MSMA Meeting without charge at the MSMA Registration Desk in the Royal Hall.

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Contraindications: History of hypersensitivity to thiabendazole.
Warnings: If hypersensitivity reactions occur, drug should be discontinued immediately and not resumed. Rarely, erythema multiforme has been associated with thiabendazole therapy; in severe cases (Stevens-Johnson syndrome), fatalities have occurred. Because CNS side effects may occur quite frequently, activities requiring mental alertness should be avoided. Safe use in pregnancy or lactation has not been established.
Precautions: Ideally, supportive therapy is indicated for anemic, dehydrated, or malnourished patients prior to initiation of anthelmintic therapy. In presence of hepatic or renal dysfunction, patients should be carefully monitored.
Adverse Reactions: Most frequently encountered are anorexia, nausea, vomiting, and dizziness. Less frequently, diarrhea, epigastric distress, pruritus, weariness, drowsiness, giddiness, and headache have occurred. Rarely, tinnitus, hyperirritability, numbness, abnormal sensation in eyes, blurring of vision, xanthopsia; hypotension, collapse; enuresis; transient rise in cephalin flocculation and SGOT; perianal rash, cholestasis and parenchymal liver damage; hyperglycemia; transient leukopenia; malodor of the urine, crystalluria, hematuria; appearance of live Ascaris in the mouth and nose. Hypersensitivity reactions include: fever, facial flush, chills, conjunctival injection, angioedema, anaphylaxis, skin rashes, erythema multiforme (including Stevens-Johnson syndrome), and lymphadenopathy.
Supplied: Suspension, containing 500 mg thiabendazole per 5 cc, in bottles of 120 cc.
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MSD MERCK SHARP & DOHME

OFFICIAL DELEGATES

114th MSMA Annual Session

County	*Delegates*	*Alternates*
Andrew	Warren C. Baker, Savannah	Gilbert B. Kelley, Savannah
Audrain	Ben N. Jolly, Mexico	William H. Jolly, Mexico
Barton	Thomas W. Carroll, Lamar	
Boone	John Walters, Columbia	Kenneth Keown, Columbia
"	William See, Columbia	David Hall, Columbia
"	Robert Jackson, Columbia	B. A. Moranville, Columbia
"	John Logue, Columbia	Reginald Pugh, Columbia
"	Hugh Stephenson, Columbia	Ray Lewis, Columbia
"	George Wilson, Columbia	Thomas Burns, Columbia
Buchanan	Richard V. Riddell, St. Joseph	R. Philip Acuff, St. Joseph
"	Ernest E. Wadlow, St. Joseph	William B. Rost, St. Joseph
"	Allen I. Herman, St. Joseph	Donald J. Stallard, St. Joseph
Butler-Wayne-Ripley	George Ladyman, Poplar Bluff	Fred Caldwell, Poplar Bluff
"	Harold H. Cline, Piedmont	Richard V. Camp, Jr., Poplar Bluff
"	Gene Leroux, Doniphan	T. E. Ruff, Poplar Bluff
Callaway	Henry Durst, Fulton	George Groce, Fulton
Cape Girardeau	Melvin C. Kasten, Cape Girardeau	Dale M. Blankenship, Cape Girardeau
"	Harold B. Rapp, Cape Girardeau	Raymond A. Ritter, Jr., Cape Girardeau
"	Edward K. Burford Cape Girardeau	Ernest D. Johnson, III Cape Girardeau
Chariton-Macon-Monroe-Randolph	D. D. Stuart, Brunswick	F. L. Harms, Salisbury
"	James E. Campbell, Macon	D. E. Eggleston, Macon
"	F. A. Barnett, Paris	W. D. Chute, Moberly
"	R. V. Tompson, Moberly	P. V. Dreyer, Huntsville
Clay	Richard Bowles, Liberty	Charles Fowler, N. Kansas City
"	Chris Fotopoulos North Kansas City	Richard Hedges, Excelsior Springs
"	Donald Kuenzi, Kansas City	Truman Schertz, N. Kansas City
Clinton	P. T. Luckenbill, Plattsburg	L. A. Ozenberger, Plattsburg
Cole	Byron Watts, Jefferson City	Robert Bregant, Jefferson City
"	G. Donald Shull, Jefferson City	James S. Gordon, Jefferson City
"	Robert Tanner, Jefferson City	James T. Leslie, Jr., Jefferson City
Cooper	Byron M. Stuart, Boonville	George Winn, Boonville
Dallas-Hickory-Polk-Dade	O. A. Griffin, Buffalo	C. H. Barnett, Bolivar
"	George Robinson, Humansville	Evelyn Griffin, Buffalo
"	Doyle C. McCraw, Bolivar	Monte Kahler, Bolivar
"	Lee McNeel, Greenfield	Harold A. Bauer, Lockwood
Dunklin	Charles R. Cash, Kennett	
Franklin-Gasconade-Warren	James Shea, Gerald	Bill Richardson, Union
"	George Workman, Hermann	Louis E. Jorel, Hermann
"	Harold Hoelscher, Warrenton	H. Walter Eyermann, Warrenton
Grand River		
Caldwell	Frank R. Daley, Hamilton	Howard Carter, Hamilton
Carroll	Erroll Allen, Carrollton	John Platz, Carrollton
Daviess	Ralph W. Bohnsack, Brookfield	J. Larry Dowell, Pattonsburg
DeKalb	Eugene Bales, Carrollton	Billy Howell, Brookfield
Grundy	Albert Cross, Trenton	William Fuson, Trenton
Harrison	Merriam Gearhart, Bethany	Willard Ellsworth, Cainsville
Linn	John Dixon, Brookfield	Robert W. Smith, Brookfield
Livingston	Donald Dowell, Chillicothe	Joseph Conrad, Chillicothe
Mercer	Windsor Atcheson, Trenton	Oliver Duffy, Trenton

County	*Delegates*	*Alternates*
Greene	Stanley S. Peterson, Springfield	William B. Mill, Springfield
"	Walter A. German, Springfield	David W. Brown, Springfield
"	M. D. Bonebrake, Springfield	James F. Terry, Springfield
"	James T. Brown, Springfield	James S. Key, Springfield
"	Robert W. Maher, Springfield	Guido I. Podrecca, Springfield
"	William M. Walker, Springfield	Don E. Menchetti, Springfield
"	Noel R. Lewis, Springfield	J. William Cheek, Springfield
Henry	Richard King, Clinton	Shelby Hughes, Clinton
Howard	W. A. Bloom, Fayette	William G. Marshall, Glasgow
Jackson	Carl M. Peterson, Kansas City	Edward P. Altomare, Kansas City
"	James S. White, Kansas City	John L. Barnard, Jr., Kansas City
"	Sidney Rubin, Kansas City	James D. Bennett, Kansas City
"	C. Y. Thomas, Jr., Kansas City	Robert W. Butcher, Kansas City
"	Donald M. Spencer, Kansas City	Edward E. Haith, Kansas City
"	Pat A. Barelli, Kansas City	Harry S. Jonas, Kansas City
"	Hector W. Benoit, Jr. Kansas City	James W. Vaughn, Kansas City
"	Martin L. Crow, Kansas City	C. Keith Whittaker, Kansas City
"	Robert W. Forsythe Kansas City	Robert W. Doering, Kansas City
"	Fred D. Fowler, Kansas City	Donald L. Furhman, Kansas City
"	William H. Gist, Kansas City	Vance E. Link, Independence
"	William D. Hoadley Kansas City	Robert A. MacNaughton, Kansas City
"	Otis E. James, Kansas City	Clyde V. Martin, Kansas City
"	William A. Leo, Kansas City	Byron J. Masterson, Kansas City
"	George J. Lytton, Kansas City	William J. Medlicott, Kansas City
"	Andrew McCanse, Kansas City	Robert A. Moore, Kansas City
"	John H. Mayer, Jr., Kansas City	Thomas P. O'Farrell, Kansas City
"	Gordon C. Sauer, Kansas City	Earl G. Padfield, Jr., Kansas City
"	O. Dale Smith Prairie Village, Kan.	William T. Sirridge, Kansas City
"	Walter J. Stelmach, Kansas City	Robert A. Slickman, Kansas City
"	Edward H. Stratemeier Kansas City	Herbert J. Winer Kansas City
"	Charles B. Wheeler, Jr. Kansas City	
"	Francis J. Ammatelli Kansas City	
"	Calvin E. Engelmann Kansas City	
"	R. Stacy Long, Kansas City	
"	Mark D. Ost, Kansas City	
"	Wayne K. Tice, Independence	
"	Edward J. Twin, Kansas City	
Jasper	John R. Esther, Joplin	Patrick L. Butler, Joplin
"	Herbert J. Schmidt, Joplin	C. B. Schoeberl, Joplin
"	W. Russell Smith, Carthage	Grover S. Patterson, Carthage
Jefferson	Vincente D. Deles, Crystal City	Harry Yoskit, Festus
Johnson	Charles M. Lederer Warrensburg	A. L. Folkner, Warrensburg

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IMPORTANT INFORMATION

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114th MSMA ANNUAL SESSION

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CAUTION: Federal law prohibits dispensing without prescription.
Indications: Pre-Sate (chlorphentermine hydrochloride) is indicated in exogenous obesity, as a short term (*i.e.*, several weeks) adjunct in a regimen of weight reduction based upon caloric restriction.
Contraindications: Glaucoma, hyperthyroidism, pheochromocytoma, hypersensitivity to sympathomimetic amines, and agitated states. Pre-Sate (chlorphentermine hydrochloride) is also contraindicated in patients with a history of drug abuse or symptomatic cardiovascular disease of the following types: advanced arteriosclerosis, severe coronary artery disease, moderate to severe hypertension, or cardiac conduction abnormalities with danger of arrhythmias. The drug is also contraindicated during or within 14 days following administration of monamine oxidase inhibitors, since hypertensive crises may result.
Warnings: When weight loss is unsatisfactory the recommended dosage should not be increased in an attempt to obtain increased anorexigenic effect; discontinue the drug. Tolerance to the anorectic effect may develop. Drowsiness or stimulation may occur and may impair ability to engage in potentially hazardous activities such as operating machinery, driving a motor vehicle, or performing tasks requiring precision work or critical judgment. Therefore, such patients should be cautioned accordingly. Caution must be exercised if Pre-Sate (chlorphentermine hydrochloride) is used concomitantly with other central nervous system stimulants. There have been reports of pulmonary hypertension in patients who received related drugs.
Drug Dependence: Drugs of this type have a potential for abuse. Patients have been known to increase the intake of drugs of this type to many times the dosages recommended. In long-term controlled studies with high dosages of Pre-Sate, abrupt cessation did not result in symptoms of withdrawal.
Usage In Pregnancy: The safety of Pre-Sate (chlorphentermine hydrochloride) in human pregnancy has not yet been clearly established. The use of anorectic agents by women who are or who may become pregnant, and especially those in the first trimester of pregnancy, requires that the potential benefit be weighed against the possible hazard to mother and child. Use of the drug during lactation is not recommended. Mammalian reproductive and teratogenic studies with high multiples of the human dose have been negative.
Usage In Children: Not recommended for use in children under 12 years of age.
Precautions: In patients with diabetes mellitus there may be alteration of insulin requirements due to dietary restrictions and weight loss. Pre-Sate (chlorphentermine hydrochloride) should be used with caution when obesity complicates the management of patients with mild to moderate cardiovascular disease or diabetes mellitus, and only when dietary restriction alone has been unsuccessful in achieving desired weight reduction. In prescribing this drug for obese patients in whom it is undesirable to introduce CNS stimulation or pressor effect, the physician should be alert to the individual who may be overly sensitive to this drug. Psychologic disturbances have been reported in patients who concomitantly receive an anorexic agent and a restrictive dietary regimen.
Adverse Reactions: Central Nervous System: When CNS side effects occur, they are most often manifested as drowsiness or sedation or overstimulation and restlessness. Insomnia, dizziness, headache, euphoria, dysphoria, and tremor may also occur. Psychotic episodes, although rare, have been noted even at recommended doses. **Cardiovascular:** tachycardia, palpitation, elevation of blood pressure. **Gastrointestinal:** nausea and vomiting, diarrhea, unpleasant taste, constipation. **Endocrine:** changes in libido, impotence. **Autonomic:** dryness of mouth, sweating, mydriasis. **Allergic:** urticaria. **Genitourinary:** diuresis and, rarely, difficulty in initiating micturition. **Others:** Paresthesias, sural spasms.
Dosage and Administration: The recommended adult daily dose of Pre-Sate (chlorphentermine hydrochloride) is one tablet (equivalent to 65 mg chlorphentermine base) taken after the first meal of the day. Use in children under 12 not recommended.
Overdosage: Manifestations: Restlessness, confusion, assaultiveness, hallucinations, panic states, and hyperpyrexia may be manifestations of acute intoxication with anorectic agents. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension, or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma.
Management: Management of acute intoxication with sympathomimetic amines is largely symptomatic and supportive and often includes sedation with a barbiturate. If hypertension is marked, the use of a nitrate or rapidly acting alpha-receptor blocking agent should be considered. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendations in this regard.
How Supplied: Each Pre-Sate (chlorphentermine hydrochloride) tablet contains the equivalent of 65 mg chlorphentermine base; bottles of 100 and 1000 tablets.
Full information available on request.

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"		
Marion-Ralls-Shelby	Thomas Fischer, Hannibal	Stanley Hall, Hannibal
"	Phillip Foreman, Hannibal	Edward Plowman, Hannibal
"	Charles Lichty, Shelbina	James Mann, Hannibal
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Laclede	Rae W. Froelich, Lebanon	
Pulaski	Clyde Miller, Waynesville	
Dent	Billy J. Bass, Salem	
Phelps	James M. Myers, Rolla	
Maries	Barbara Russell, Rolla	
Crawford	Frank A. Elders, Cuba	
Miller		
Mineral Area		
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Iron	Robert F. Dettmer, Ironton	
Madison	Marvin Grossman Fredericktown	Robert A. Huckstep, Farmington
Washington	Kirby Turner, Potosi	Charles H. Appleberry, Rivermines
Reynolds	Retus W. Osborn, Farmington	
Bollinger	Norma Farmer, Farmington	
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Knox	Francis Tarvydas, Edina	Waldo Isom, Knox City
Schuyler		
Sullivan		
Putnam		
Northwest		
Nodaway		
Holt		
Atchison		
Gentry		
Worth		
Ozarks		
Barry	Mary Merideth, Cassville	Francisco Esparrago, Monett
Lawrence	Kenneth Glover, Mt. Vernon	Charles Brasher, Mt. Vernon
Stone	Fred Wommack, Crane	Joseph Gardner, Reeds Spring
Christian	Stanley Roper, Ozark	
Taney	Charles Spears, Branson	Roy Gillespie, Branson
Newton	Leo Taylor, Neosho	Paul Anderson, Neosho
McDonald	George Blankenship, Neosho	
Pemiscot	O. W. Cook, Caruthersville	A. S. Gubin, Caruthersville
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"	William Utterman, Perryville	Gerard DeGenova, Ste. Genevieve
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Pike	Charles H. Lewellen, Louisiana	Lawrence G. Stuerman, Louisiana
Platte		
St. Charles-Lincoln	Joseph C. Creech, Troy	Edward Dameron, Elsberry
"	Paul H. Rother, St. Charles	John Goldkamp, St. Charles
"	John C. Soucy, St. Charles	Glenn L. Gore, St. Charles
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"	Armand E. Brodeur, St. Louis	John W. Berry, St. Louis
"	Robert D. Brookes, St. Louis	Richard K. Danis, St. Louis

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”	Kenneth Bruns, St. Louis	Richard J. Ferry, St. Louis
”	Marshall B. Conrad, St. Louis	Robert E. Funsch, St. Louis
”	Thomas J. Cooper, St. Louis	William J. Gillespie, St. Louis
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”	Robert H. Felix, St. Louis	Jack Hartstein, St. Louis
”	Thomas B. Ferguson, St. Louis	Bray O. Hawk, St. Louis
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”	Charles A. Jost, St. Louis	Otey S. Jones, St. Louis
”	Donald R. Judd, St. Louis	William G. Juergens, St. Louis
”	Robert W. Kelley, St. Louis	George C. Kaiser, St. Louis
”	David N. Kerr, St. Louis	Charles J. Kromer, St. Louis
”	G. Lynn Krause, Jr., St. Louis	Herry E. Lattinville, St. Louis
”	Lawrence M. Lawton, St. Louis	Louis T. Litzow, St. Louis
”	J. Eugene Lewis, Jr., St. Louis	Stanley L. London, St. Louis
”	Francis X. Lieb, St. Louis	Joseph L. Lucido, St. Louis
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”	Paul F. Max, St. Louis	Emil F. Miskovsky, St. Louis
”	Authur W. Neilson, St. Louis	Joseph C. Peden, Jr., St. Louis
”	Lawrence W. O'Neal, St. Louis	Stephen L. Post, St. Louis
”	Harry A. Reich, St. Louis	Robert H. Ramsey, St. Louis
”	Hubert A. Ritter, St. Louis	Herman E. Russell, St. Louis
”	John S. Sciortino, St. Louis	Jerome T. Y. Shen, St. Louis
”	John B. Shapleigh, St. Louis	Andrew J. Signorelli, St. Louis
”	Charles S. Sherwin, St. Louis	Kathleen Smith, St. Louis
”	William L. Smiley, St. Louis	William Stoneman, III, St. Louis
”	James M. Stokes, St. Louis	Robert Tatkow, St. Louis
”	Clarence M. Turner, St. Louis	Jessie L. Ternberg, St. Louis
”	Joseph B. Vacca, St. Louis	Oliver E. Tjoflat, St. Louis
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”	F. Eugene Pennington, St. Louis	J. Leslie Walker, St. Louis
”	Paul L. Friedman, St. Louis	Carol F. Williams, St. Louis
”		R. Dean Wochner, St. Louis
”		
”		
St. Louis County	Jack R. Eidelman, St. Louis	Morris Alex, St. Louis
”	Allen P. Klippel, St. Louis	Clarence M. Benage, St. Louis
”	Rudolph E. Catanzaro, St. Louis	Jack M. Estes, St. Louis
”	C. Howe Eller, St. Louis	Wilbur H. Gearhart, St. Louis
”	William L. Tomlinson, St. Louis	Richard Sutter, St. Louis
”	Melvin M. Schwartz, St. Louis	Herluf Lund, St. Louis
”	James C. Sisk, St. Louis	Jerry N. Middleton, St. Louis
”	Willard B. Walker, St. Louis	Paul W. Miles, St. Louis
”	Miles C. Whitener, St. Louis	Arturo C. Montes, St. Louis
”	C. Read Boles, St. Louis	Thomas R. Moon, St. Louis
”	Barney W. Finkel, St. Louis	Wilbur A. Mullarky, St. Louis
”	Jules H. Kopp, St. Louis	James R. Nakada, St. Louis
”	John M. Laird, Jr., St. Louis	Joseph D. O'Keefe, St. Louis
”	Robert A. Mayer, St. Louis	Rudy Ruhling, St. Louis
”	Charles Miller, Jr., St. Louis	Frank J. Valach, St. Louis

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Stoddard	Ronald T. Hill, Dexter	Richard Comeau, Dexter
New Madrid	Alden P. Sargent, Sikeston	Jose L. Castillo, Sikeston
Mississippi	Gregorio L. Rodriquez Charleston	Robert L. Frazier, Charleston
Scott	Max A. Heeb, Sikeston	Robert Colbert, Sikeston
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Wright	James Hasek, Mountain Grove	Martin Hasek, Mountain Grove
Texas	Joe Wall, Houston	Joe Spears, Cabool
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Oregon	C. W. Cooper, Thayer	A. T. Walker, Mammoth Springs, Ark.
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Cedar	Robert L. Magee El Dorado Springs	Harry V. Langeluttig, Jr., Nevada
St. Clair	Donald H. Geisler, Osceola	Glen H. Reed, Osceola
Vernon	James J. Pascoe, Nevada	John Torontow, Nevada

COMMERCIAL EXHIBITORS LIST

For the 114th Annual Session

Booth	Exhibitors
46	Altman-Singleton & Co. Kansas City
3	American Medical Facilities Corp. St. Louis
11	Astra Pharmaceutical Products, Inc. Worcester, Mass.
57	BBC Health Care Industries, Inc. St. Louis
58	Blue Cross and Blue Shield Kansas City
54	Bristol Laboratories Syracuse, N. Y.
45	Casualty Indemnity Exchange Denver, Colo.
40	Clinical Laboratories of St. Louis, Inc. St. Louis
6	Cole Pharmacal Company, Inc. St. Louis
42	Data Service Agency, Inc. St. Louis
33	The Doyle Pharmaceutical Company Minneapolis, Minn.
24	Encyclopaedia Britannica, Inc. Chicago, Ill.
52	Health Care Foundation of Missouri Jefferson City
37	Homemakers International Company St. Louis
47	Eli Lilly and Company Indianapolis, Ind.
2	The Medical Protective Company Fort Wayne, Ind.
5	Merck Sharp & Dohme West Point, Pa.
4	Missouri Regional Medical Program Columbia
7	North American Pharmacal Dearborn, Mich.
15	Organon, Inc. West Orange, N. J.
56	Ortho Pharmaceutical Corporation Raritan, N. J.
28	Parke, Davis & Company Detroit, Mich.
48	Postal Investment Company, Inc. Jefferson City
22	Riker Laboratories, Inc. Northridge, Calif.
44	Rowell Laboratories, Inc. Baudette, Minn.
55	Sandoz Pharmaceuticals Hanover, N. J.
1	W. B. Saunders Company Philadelphia, Pa.
32	G. D. Searle & Company Chicago, Ill.
25	Missouri Seven-Up Bottlers St. Louis
29	E. R. Squibb & Sons, Inc. Princeton, N. J.
41	Standard Process Laboratories, Inc. Milwaukee, Wisc.
50	Stuart Pharmaceuticals Division of Atlas Chemical Ind., Inc. Pasadena, Calif.
43	United Medical Equipment Company Kansas City
36	The Upjohn Company Kalamazoo, Mich.
49	USV Pharmaceutical Corporation Tuckahoe, N. Y.

"Without your help

. . . I simply would not have made it through medical school!"

(The following letter was received on Oct. 1, 1971 from a physician who, as a student, received financial assistance from the Missouri State Medical Association members who have contributed to the Missouri State Medical Foundation. It is printed with his permission.)

Dear Doctor:

"Thank you very much for your thoughtful letter concerning receipt of my final payment on my medical student loan.

"I can well remember the feeling of destitution associated with being a reasonably good student but lacking funds with which to enroll for the next semester in medical school. Having always been, perhaps, more than adequately endowed with pride, it was a lesson in discipline and humility to go seeking financial assistance. However, the effort brought me in contact with some very nice people who really do a lot to keep one's faith in human nature alive.

"I sincerely appreciate the efforts which you and others put into the Missouri State Medical Foundation and all other student loan funds. You should feel a quiet heroism for the assistance you lend to needy students . . . without your help, I simply would not have made it through medical school."

The Missouri State Medical Foundation—MSMF—was created by the Missouri State Medical Association for the express purpose of giving financial assistance to deserving young Missourians who will be tomorrow's doctors.

Send a Check Today to MSMF!

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Dr. Emmett F. Hoctor Receives Humanitarian Award

Emmett F. Hoctor, M.D.

Dr. Emmett F. Hoctor, who has devoted his life to the treatment of the mentally ill, was awarded the 1971 *St. Louis Globe-Democrat* Humanities Award and hailed as "eminent psychiatrist, personal physician to the poorest of the poor and gentle healer of the heart and mind" in ceremonies on Dec. 30, 1971.

G. Duncan Bauman, publisher of *The Globe-Democrat,* made the presentation to Doctor Hoctor before more than 400 friends, relatives, professional associates, government officials, church men and community leaders in the auditorium of the Dr. Emmett F. Hoctor Building on the grounds of the Missouri State Hospital in Farmington. Due to lack of space, public announcement of the event was withheld and only invited guests were present, some of whom traveled great distances.

The citation reads as follows:

"Dr. Emmett F. Hoctor, having devoted himself to those whose affliction causes them to be irrational, disturbed or even abusive to those who are helping them, has been denied the appreciation which patients who suffer physical ailments normally can express. Nonetheless, in an extraordinary career embracing half a century, he has blended the highest professional skills of the psychiatrist with the loving personal attention of a faithful family doctor.

"Through his total dedication, thousands of unfortunate mentally ill Missourians have been restored to their families and society. Others have been afforded permanent shelter with dignity and decency.

"In retirement, after an unparalleled 38 years as superintendent of Farmington State Hospital, he continues to treat hundreds each month through outpatient and mobile clinics. To countless persons, he has meant the difference between life and devastating despair."

Doctor Hoctor, a member of the Missouri State Medical Association since 1924, was superintendent of the hospital for 38 years and now is director of community psychiatry. He is the 13th recipient of the award, which is one of the most coveted awards presented in Mid-America, and the first recipient of the award who is not a metropolitan area figure of great prominence. With the award, he received the citation and $1,000 donated by Lewis T. Apple, a St. Louis philanthropist who established the award in 1959.

In making the presentation, Mr. Bauman declared that citizens of St. Louis, the state of Missouri "and perhaps all of America have an immense debt to Doctor Hoctor for his skillful, unexcelled and selfless devotion to his profession of psychiatry."

Doctor Hoctor, in accepting the award with "deep humility and deep pride," paid tribute to the many men and women who went to his and the hospital's assistance throughout the years.

In 1962, Doctor Hoctor was the first recipient of the Missouri Mental Health Award, an award which recognized him as the person who had contributed the most in this cause. Last year, he received the honor citation of the Missouri Academy of General Practice, making him the only person to have won top honors in both the psychiatric and general health fields.

In 1967, Pope Paul VI named him a Knight of St. Gregory. He was invested in the pontifical order at St. Louis Cathedral by Bishop George J. Gottwald on July 20, 1967.

Doctor Hoctor was born in Omaha, Neb. on Aug. 22, 1896, the son of Thomas Hoctor, who was born in Ireland, and Pauline Paulsen Hoctor, who was born in Germany. He attended Omaha's South High. He enrolled in Creighton University in 1915 and received his bachelor of philosophy degree from the Jesuit institution. He then entered the University's medical school, where he was graduated with honors in 1923. After a year's internship at St. Joseph's Hospital in Omaha, during which time he prepared to specialize in psychiatry, young Doctor Hoctor took a professor's advice and accepted a position on the staff at Missouri State Hospital in Nevada, intending to stay a year before entering private practice in St. Louis.

Shortly before the end of his year, the superintendent resigned and Doctor Hoctor found himself appointed interim medical director. He gave notice so that he could proceed with his plan for private practice, but the head of the Department of Mental Diseases offered to make him superintendent at Farmington if he would agree to stay another year. He was reluctant to lose Doctor Hoctor's talent. The rest is "the history of a genuine medical missionary, for that is what Doctor Hoctor has been to the people in Missouri."

As director of community psychiatry, he now works every day with equal enthusiasm, seeing dozens of outpatients in the cheerful clinic which state officials named in his honor. He makes weekly visits to the other towns in Southeast Missouri to provide the skills of a professional psychiatric team to those who cannot afford to travel to Farmington. This new challenge has provided an opportunity for the doctor to implement many ideas, all aimed at relieving and helping the mentally ill of Southeast Missouri.

Before Doctor Hoctor, the average tenure of a superintendent at Farmington was two years. In his unprecedented 38-year term as superintendent which exceeds the combined years of all his predecessors, and in the eight subsequent years as director of community psychiatry, he has served under 11 governors, earning the confidence and respect of all.

The story of Dr. Emmett F. Hoctor is told in the book, "Let Me Not Be Mad, Sweet Heaven," which was written by William Stewart and John Stewart and published in 1968. "The greatest human healer I have known" is the way Dr. George A. Ulett, director of Missouri's Division of Mental Diseases, describes Doctor Hoctor in the foreword. Countless citizens share his opinion.

IMPROVED ACCIDENT & HEALTH PROGRAMS

The Disability Income Policy sponsored by the Missouri State Medical Association since 1943 has now been made GUARANTEED RENEWABLE and income benefits are available up to $300.00 weekly to members under age 56 subject to acceptance by the Company.

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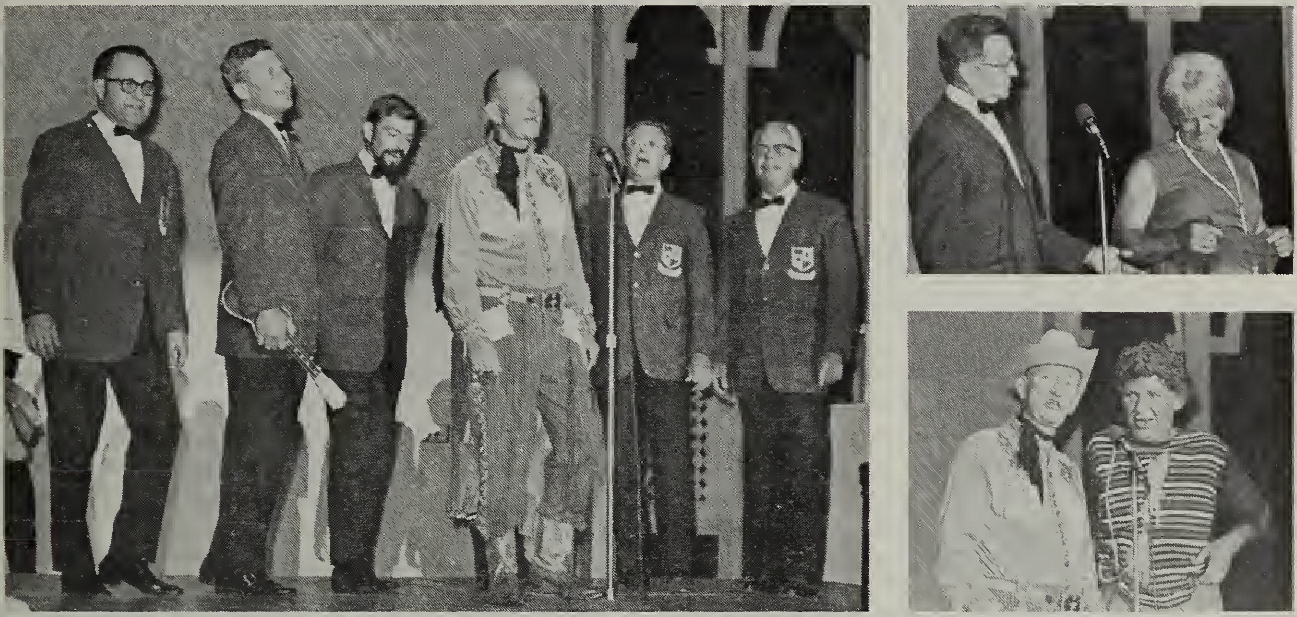
Singing Doctors Will Add 'Musical Mayhem' at Presidents' Banquet in Kansas City



Meet the nationally-famous "Singing Doctors" from Springfield and the Greene County Medical Society. *(Above, left to right)* Drs. Harold H. Lurie, F. T. H'Doubler, Jr., James R. Cook, James T. Brown, Charles E. Lockhart and Fred C. Coller. Dr. Don F. Gose is hidden by Doctor Brown. Specialty numbers by Drs. Brown and Gose *(top, right)* and Drs. Lockhart and Coller *(bottom, right)* add more fun to their "zany" performances.

Everyone who enjoys laughing will have a hilarious time at the Presidents' Banquet in Kansas City on April 8.

Greene County's nationally-famous Singing Doctors of Springfield will be there to entertain in a musical fashion new to MSMA banquet audiences of recent years.

To quote Dr. Wilfred E. Wooldridge of Springfield, who wrote in the August, 1969 issue of *Resident and Staff Physician*, "This zany team has become nationally famous by making fun of themselves and all those around them. Nobody escapes—hospital administrators, nurses or professors and, least of all, their fellow practitioners. They've front-paged New York City newspapers and they've thumbed their noses at the most staid and dignified of their profession." The title of Doctor Wooldridge's article is "The Singing Doctors Make Medical Musical Mahem."

It all began 14 years ago when Dr. James T. Brown was program chairman for Greene County Medical Society's annual banquet. Since he had no budget, he sought out five more extrovert doctors and the six nervous doctors poked fun at the profession by adapting tunes to new medically-oriented lyrics written by Doctor Brown.

They received such an appreciative applause from their coworkers that they were asked to perform again the following year. Since that time, they have appeared on many programs in the surrounding area and in almost all of the midwestern United States and were featured on the national television show, "I've Got A Secret." They also performed at the MSMA Presidents' Banquet in 1958 and before the AMA House of Delegates in Atlantic City last year.

Soon after their early appearances, it became apparent to members of the group that they had a potential for accomplishing more than entertaining people because they were receiving requests for recordings of their songs. They organized the Greene County Medical Foundation and cut their first album, "Borobrygimi." Now, four records have been made and the group has raised $150,000 for the Foundation, which has made more than 125 low-interest loans to 56 medical students who needed financial assistance for their medical educations. While the money is loaned and reloaned, the Singing Doctors go right on bringing in additional money for more students.

There is no other source of money because they make no charge for appearances other than their traveling expenses and a fee for their accompanist who is a professor at Southwest Missouri State College. However, it is hopeful that the groups the Singing Doctors entertain will reward their appearance by making a generous contribution to the Foundation.

Titles of their other albums are "Placenta Previews," "Medic Emetics" and "Singing Doctors on Stage."

The sextet is composed of Drs. Charles E. Lockhart, Don F. Gose, F. T. H'Doubler, Jr. and James T. Brown, surgeons; Fred C. Coller, pathologist; and Harold H. Lurie, internist. Dr. James R. Cook appears with the group at various times. Doctor Lockhart has the only trained voice in the group. Doctor Brown describes the sextet as "five hams who can barely carry a tune in a basket and one real voice."

In addition to the serious aspects, there's fun in store for you at the Presidents' Banquet at the 114th Annual Session. Here's a sample of what you'll hear:

HALITOSIS

(Tune: Five Foot Two, Eyes of Blue)

That old bad breath
Ole bad breath
That awful odor is worse than death
But halitosis beats no breath at all

A turned up nose
Means you're one of those
Who should use Sen-Sen or chew cloves,
But halitosis beats no breath at all

Now all the dentists say if you can pay, they'll cure this disease
It isn't so, so save your dough, be grateful for a malodorous wheeze

Now don't be sad
If your breath is bad
You've every reason to be glad
For halitosis beats no breath at all

Now you will find a few best friends who won't tell you your scent
Let insults lay, there'll come the day, you'll wonder where the yellow went

Now don't be sad
If your breath is bad
You've every reason to be glad
For halitosis beats no breath at all

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The Council Reports

Meeting of Dec. 11-12, 1971

E. A. Stricker, M.D., St. James, Chairman, called the meeting to order. Those present were Drs. Stricker, John N. Martin, St. Joseph; Lysle M. Bach, Hannibal; Max S. Franklin, St. Louis; Louis P. Hetlage, Troy; James C. Cope, Columbia; William D. Bradshaw, Clinton; R. Allen Chandler, Kansas City; Howard McAlhany, Springfield; E. T. Hansbrough, Poplar Bluff; Gerald L. Miller, Kansas City; Walter T. Gunn, St. Louis; Charles R. Gulick, St. Louis; John I. Matthews, Jefferson City; Cyril J. Costello, St. Louis; David N. Kerr, St. Louis; J. Loren Washburn, Versailles; Stanley S. Peterson, Springfield; Arthur W. Neilson, St. Louis; William D. Mayer and William C. Allen, Columbia; George E. Thoma, St. Louis. Messrs. John W. Noble, Kennett; James Hughes and Harry Powell, St. Louis; Tim Norbeck, St. Louis; Allen D. Smith, Kansas City; Hollister S. Smith, St. Louis; Ray McIntyre, Tom P. Fox, Bob Carroll and Royal O. Cooper, Staff.

The chairman welcomed all present. Dr. Gunn moved that a get-well card be signed by all present and forwarded to Mrs. Max Franklin who recently suffered severe burns in a furnace explosion. The card was obtained and forwarded as instructed.

REPORT OF THE COMMISSION ON INTERSPECIALTY MEDICINE

Dr. Costello, Chairman, reviewed the minutes of the meeting of the Interspecialty Medicine Commission which was held in St. Louis on October 10. Copies of the minutes were distributed to all present.

Dr. Costello stated that the Commission members had attended meetings faithfully and participated well and that Council directives were taken seriously. He stated that two principal items were charged to the Commission: (1) Health Care for the Poor and (2) Physician Assistant. The Chairman said that considerable time had been spent on research prior to the meeting with people interested in the field of health care for the poor and that the most helpful information had been received from the AMA. He said the AMA had developed a committee to study the health care needs of the poor and recommended the six points included in the minutes which the Commission agreed upon, namely Short-Term Goals. It was pointed out that you cannot define the poor. They are in all communities, and the best approach to the problem appears to be one in which a local medical society committee is designated and charged with the problem of dealing with representatives of the poor and with the agencies working in this field. Also this committee should be affiliated with a state medical society committee similar to the one set up by the AMA. This state committee should offer assistance to these committees and work with the AMA committee.

After discussion, on motion of Dr. Miller, duly seconded, it was agreed that the Chairman of the Interspecialty Commission be asked to appoint an Ad Hoc Committee on Health Care for the Poor. Motion carried. This ad hoc committee is to work for implementation of a Health Care for the Poor Program in Missouri as outlined in AMA's Short Term Goals #1 through #6.

On the matter of Physician Assistants, Dr. Costello said a great deal of study had been made of this subject over the past three years. Dr. Stoneman has chaired the Ad Hoc Committee which developed recommendations as summarized in the report of the Ad Hoc Committee of September 17, which scheduled a conference with the Commission on Medical-Legal Affairs and the Committee on Legislative Affairs. After discussion, it was agreed to make the following recommendations to the Interspecialty Commission and which were approved by the Commission:

1. That the Interspecialty Commission recommend to the Council that the statewide survey described on pages 673, 674 and 675 of the September, 1971 issue of MISSOURI MEDICINE has established that a demand exists for physician assistants among the private practitioners of medicine in the state of Missouri and that establishment of a training program or programs is justified.
2. That the Interspecialty Commission recommend to the Council that the MSMA not support attempts to fix the role and functions of the physician assistant legally by licensure mechanism, but that physician assistants be certified upon satisfactory completion of an approved training program and function only under the responsibility and authority of a licensed practitioner of medicine who would then define the role of the physician assistant and assume responsibility for his acts.
3. In connection with certification upon completion of an approved training program, the Ad Hoc Committee recommends that the Interspecialty Commission propose to the Council that the MSMA take leadership in establishing minimal standards for approval of training programs for physician assistants in Missouri and that these standards include, among other things, satisfactory completion of a preceptorship of not less than six months under the supervision of a practicing licensed physician.
4. The Ad Hoc Committee recommends the policy that mechanisms for deployment of physician assistants to areas most in need of additional health manpower be devised and that the obvious advantages of the preceptorship component of the training program be used to the maximum extent possible in this connection.
5. The Ad Hoc Committee recommends that the Interspecialty Commission or others appointed by the Council seek clarification of the position of malpractice underwriters on the cost increases for malpractice insurance to be anticipated by physicians employing physician assistants from approved training programs.

Discussion followed regarding the above-mentioned recommendations. It was the consensus of opinion that the recommendations be accepted for filing with the exception of No. 3, which is to be deleted. On motion of Dr. Miller, seconded by Dr. Martin, it was agreed to accept this portion of the report for filing, with the deletion of No. 3. Motion carried.

After further discussion, on motion of Dr. Martin, duly seconded, the report of the Interspecialty Commission was approved with the matter of the physician assistant accepted for filing as amended.

REPORT OF THE AD HOC COMMITTEE TO STUDY NEGOTIATION OF PROFESSIONAL FEES

Dr. Peterson gave a brief resumé of the progress to date on the work of his Ad Hoc Committee to Study the Negotiation of Professional Fees. He stated that he made a trip to Chicago with Mr. Noble recently for a discussion with Mr. Hirsh, General Counsel for the AMA. It was suggested that possibly a new resolution could be prepared for introduction to the AMA House of Delegates in December; however, he stated that this was not possible as they are not ready as yet. The work is going forward and, at this time, it appears as though they will be in a position to present their report to the MSMA House of Delegates in April, 1972. Legal Counsel will provide the necessary research required at an early date to hopefully enable the Committee to present a mechanism for negotiation to the MSMA House of Delegates. A mechanism to be set up within the present MSMA structure to negotiate fees is a basic concept of the committee.

After further discussion, on motion of Dr. Cope, duly seconded, the report of the Ad Hoc Committee to Study Negotiation of Professional Fees was accepted with commendation and the Committee was urged to move forward with full speed.

REPORT OF THE EXECUTIVE SECRETARY

Mr. McIntyre congratulated Dr. William C. Allen of Columbia who received the 1971 Annual Award for Outstanding Service to Medicine from the Missouri Academy of Family Physicians.

Mr. McIntyre referred to a letter which Dr. Gunn had received from General American Life stating that they have an opening in the Medical Department for a medical consultant at a salary of $20,000 to $25,000 per year. It was reported that other association officers and county societies received a similar letter.

Mr. Hughes of St. Louis Blue Shield stated that Blue Shield is in the market for a full-time medical director. He said that they have a part-time medical director, but the volume of activities for reviewing cases has increased so drastically that a full-time medical director is needed. He said any suggestions from the Councilors would be welcomed.

Mr. McIntyre then requested Legal Counsel to give a brief report on the law suit regarding the Health Care Foundation in which MSMA is involved. Mr. Noble stated that the case is pending in St. Louis County. Specific legal motions have been filed to show cause for dismissal. A hearing has been held and the motions to dismiss were recorded. He stated that the motions to dismiss are under consideration and further actions depend on the motions that are sustained.

Mr. McIntyre said there were two items that were not on the agenda. One is the problem of getting exhibitors for our annual meeting, which is becoming more difficult each year. The question is could we eliminate exhibits or, perhaps, request prospective exhibitors to sponsor a speaker or give a cash grant for promotion of the entire scientific program with proper acknowledgement.

The second item was the matter of renewing the lease on present MSMA office space which expires on April 1, 1973 or consideration of alternatives.

On motion, duly seconded, the Executive Secretary's report was approved with further consideration to be given to the latter two items mentioned in his report.

REPORT OF THE TREASURER

Dr. Gulick presented the Treasurer's Report, which was distributed to the Council and Officers. He reviewed the figures shown in the Treasurer's Account, minus the accounts payable in the amount of $20,938.87, which left a balance on hand of $69,803.97 as of Dec. 1, 1971. This does not include the Investment Account. On motion of Dr. Gunn, duly seconded, the Treasurer's Report was approved.

REPORT OF THE BUDGET COMMITTEE

The Budget Committee met on Friday afternoon, Dec. 10, 1971, prior to the Council Meeting on Saturday, with all members present. The Committee reviewed the material presented which showed Exhibit A—Actual Income through Oct. 31, 1971; Expected Total Income for 1971; Income Budget for 1971 and Estimated Receipts for 1972. Exhibit B—Actual Expenditures through Oct. 31; Estimated Expenditures for 1971; Budget for 1971 and Proposed Budget for 1972. Exhibit C—Actual Meeting and Committee Expenses through Oct. 31, 1971; Estimated Expenses for all of 1971; and Proposed Budget for 1972. A breakdown for the year 1971 also was included. Dr. Gulick pointed out that the budget outlook for 1971 is good and the budget proposals for 1972 are practical and within anticipated income. The following proposed budget was approved for 1972:

Salaries	$122,340.00
Furniture & Fixtures	500.00
Office Rent & Lights	7,700.00
General Expense	3,500.00
Office Supplies	3,300.00
MSMF Assessment	37,765.00
Postage	3,700.00
Journal Expense	44,000.00
Equipment Rentals & Repairs	2,300.00
Telephone and Telegraph	7,000.00
Pension Expense	23,911.00
Legal & Professional	8,000.00
Taxes Payroll	4,300.00
Travel Expense	5,500.00
Meetings & Committee Expense	36,900.00
Annual Session	17,500.00
Investment Fund	5,000.00
Car Lease & Expense	2,300.00
Total	$335,516.00

It was the recommendation of the Budget Committee that MSMA no longer pay for the Missouri State Medical Foundation expenses, cost of auditing and other expenses, and that the Foundation (Medical Student Loan Program) now pay its own expenses.

On motion, duly seconded, the Budget Committee report was approved.

REPORT OF THE COMMISSION ON PUBLIC AFFAIRS

Bob Carroll of the MSMA Staff presented the program of the Public Affairs Conference which will be held following the Council Meeting at the Ramada Inn in Columbia on Saturday afternoon and evening, January 29 and Sunday morning, January 30. Copies of the program were distributed. All members of MSMA were urged to attend.

On motion of Dr. Gunn, duly seconded, the report of the Public Affairs Commission was approved.

NEW ST. LOUIS BLUE SHIELD PROPOSALS

Mr. Hughes, President, St. Louis Blue Shield, stated that the Executive Committee of his Board had recently received a request from the Missouri Association of Osteopathic Physicians & Surgeons to place Doctors of Osteopathy on the Blue Shield Board, and he was directed by the Blue Shield Board to ask the Council of MSMA for their opinion and recommendations, inasmuch as MSMA has been the sponsoring organization for St. Louis Blue Shield.

After discussion, Dr. Miller moved that the MSMA Council take the position of recommending osteopathic representation on the Board of the St. Louis Blue Shield Plan to the MSMA House of Delegates. Motion was seconded and carried.

Mr. Hughes then stated that prior to his arrival in Missouri, several of the physicians on the Blue Shield Board had been approached by participating physicians to consider a type of "open panel practice program" which had been adopted in Colorado on an experimental basis. He stated that he reviewed the details of the Colorado plan so he would be in a position to meet with various groups over the state and explain this plan. He said meetings had been held in St. Louis City and County and with representatives of other groups to review the open panel practice program. He stated that if the Councilors felt that Blue Shield should develop this type of program, Blue Shield would like to have representatives from each District meet with them to review such a plan so that the input actually would come from the physicians throughout the state and to get approval of MSMA to offer such a program to Blue Cross and Blue Shield members.

"Nearly 50, eh? Well, I must say, you certainly don't look it!"

Mr. Hughes said that the program is designed to take care of a comprehensive set of benefits which goes beyond their UCR program. The benefits are primarily on the ambulatory side rather than in-hospital care. Ambulatory services are those which the physicians perform as home and office care, well baby care, related X-ray and laboratory services in connection with patient illnesses. The program is designed on a voluntary physician-participating basis.

Mr. Hughes said that he again would like to have the opportunity, with his staff present, to sit down and review the details and have direction to take the next step, to develop some of the basic benefits in the cost of the program, to meet with representatives from the Councilor Districts regarding the development of this program and to meet again with the whole Council for further consideration. He stated that he had just "scratched the surface" in his presentation.

Considerable discussion followed and Dr. Miller moved that the Council thank Mr. Hughes for his explanation of existing services and recommend approval of the concept of the Open Panel Practice Program and, after the program has been formulated, it be resubmitted for MSMA Council approval. The motion was seconded by Dr. Gunn and carried.

REPORTS OF THE DEANS OF MEDICAL SCHOOLS

Dr. Mayer, Dean of the University of Missouri-Columbia Medical Center, reported that over the past ten or 11 years the Medical Center has grown in such a fashion that they felt they needed to intensively review what their functions should be. They did initiate a long-range plan which included a review of the implications of regionalization to the Center. Dr. Mayer distributed material relative to the Role, Scope and Mission of the University of Missouri-Columbia Medical Center for the Council's information.

He stated that there are several areas of primary interest at this time. They are (1) Evolution of primary care of the family practitioner which should be rapidly expanded; (2) Terms of outreach effort, the responsibility of trying to be of assistance throughout the state. They plan to get involved in one or two demonstration models; (3) Evolution of the University Hospital and its policies and procedures, patient care responsibilities as served by the hospital and clinics; and (4) Evolution of the health manpower issue itself. What has happened in the area of health manpower, nurses, allied health, etc.? He said that health manpower is not only physicians. We must start to make some decisions within the medical center in terms of what we should be doing, what kind of physicians, more surgeons, primary care, emphasis on expansion—do we need more nurses, what kind, etc.? We are trying to come to some decisions as to how we can change things. For example, how do we get better distribution of our health manpower trained at M.U.?

Dr. Thoma complimented Dr. Mayer on his report. Dr. Thoma stated that in regard to the Physician Assistant, St. Louis University has gone into this program with two types of people involved: one group at VA, joint program of the Junior College District and the VA, limited number and they will be employed within the

(Continued on page 224)

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Notes of interest from Here . . . . and There

The **MSMA 50-Year Club** will hold its annual business luncheon at 12:30 PM on Saturday, April 8 in Room 4 at the Muehlebach Hotel in Kansas City during the 114th Annual Session. All 50-year members will receive a reservation blank in the mail early in March. **Dr. Charles E. Gilliland** of Cameron, Chairman, urges all to make their reservations as early as possible to attend this annual event.

Dr. Wendell G. Scott, Clayton, has been named to a ten-member Advisory Committee on Cancer by the AMA Board of Trustees. The committee, which was established in December, 1971, will advise on developments in research, on government-supported cancer programs, on activities that can be undertaken by the AMA in professional and public education.

Dr. Melvin C. Kasten, Cape Girardeau, has been elected president of the Missouri State Board of Healing Arts. A member of the Board for six years, Doctor Kasten was its president in 1969-70. He succeeds **Dr. Harry Still** of Macon. At its meeting in Jefferson City in January, the Board reported that it had issued licenses to 250 of the 338 prospective doctors who took examinations in December. One hundred and ninety foreign-educated physicians received licenses.

Dr. Wilson J. Ferguson, founder of the Ferguson Medical Group in Sikeston, has left the clinic to assume duties as medical director of the General Motors Corporation in Atlanta, Ga. on March 1. In addition to his numerous medical society affiliations, Doctor Ferguson has served on the liaison committee of the Regional Medical Program and as vice-chairman of the state advisory council for that program.

Dr. O. B. Crawford, Past-President of Greene County Medical Society, is the recipient of the first Distinguished Leadership Award to be made by the Society. In presenting the award, **Dr. Robert D. Duncan,** President, cited Doctor Crawford for his work in the development of the Community Organization for Drug Abuse Control (CODAC) in Springfield. Doctor Crawford was elected president of the board of directors of CODAC in February. He also is the recipient of the Humanitarian Award of the Southwest Missouri Drug Travelers Association in recognition of his service with CODAC.

After more than 21 years of service with the U. S. Naval Reserve, **Cmdr. Grover S. Patterson,** M.D. of Carthage was honored via retirement ceremonies at the U. S. Naval Reserve Training Center in Joplin. After commending Cmdr. Patterson's record in uniform, his fellow officers presented a gift provided by the division personnel. Cmdr. Patterson said the basic reason for his retiring is a busier schedule in his private practice. He plans to use his new spare time to care for his patients and to be with his family.

Dr. Cecil G. Leitch, Blue Springs, is one of five new members appointed to the city-county office of aging by the Jackson County Court. Doctor Leitch practiced medicine for 32 years in Kansas City before moving his practice to Blue Springs in 1959. He was coroner for seven years and county health officer for three years. He said he hopes the committee can design recreation programs to reduce the isolation and loneliness which many elderly persons feel.

Recognition has been given to **Dr. Kenyon Latham** for the health care his family has given citizens of California for many years. Upon receiving a plaque, Doctor Latham said that the week of Feb. 3, 1972 marked a period of 100 years in which there has been a Doctor Latham in that community.

Dr. Irwin T. Craig of Joplin has announced that he is giving up his obstetrical practice after 32 years to devote his full time to the practice of gynecology. A feature story in the *Joplin Globe* reports that when Doctor Craig opened his office in 1939, he was the only obstetrician and gynecologist in the Joplin area. Doctor Craig's associates are **Dr. Herbert J. Schmidt** and **Dr. Howard H. Roberts.**

Dr. O. A. Carron, Perryville, recently received the Perryville Chamber of Commerce's Outstanding Citizen of the Year award. Doctor Carron began general practice in Perryville in 1932. He worked closely in the planning of the Perry County Memorial Hospital in the early 1950s. He is a Past Grand Knight of the Wm. Barnwell Council, Knights of Columbus.

Dr. Charles T. Riley, Jr., Richmond, has been elected to membership in the Pan American Medical Association in recognition of his outstanding performance in his specialized field, family practice. The Association is composed of a select group of physicians in the western hemisphere who recognize the need for medical education and exchange ideas, information and knowledge in the field of medicine.

The Cardiovascular Care Committee of the Missouri Heart Association in January approved activities to kick-off a Cardiac Care Missouri, a comprehensive program to lower the death rate from cardiovascular disease. Project director is **Dr. Clifford R. Talbert, Jr.** of Carthage. The care program will emphasize public education on the early warning signs of heart attack through the use of television films, radio tapes and news media information.

Dr. Frank Nieson, St. Louis, has been elected president of the Incarnate Word Hospital Medical Staff. **Dr. Charles A. Molden,** St. Louis, has been elected president and chief-of-staff at Missouri Baptist Hospital in St. Louis.

WASHINGTON

President Nixon said his Administration will expand its programs to improve the nation's emergency medical services and to combat diseases of the heart, blood vessels and lungs.

In the long version of his two State of the Union messages to Congress, the President said the "staggering" U. S. death toll from accidents —more than 115,000 last year—"could be greatly reduced by upgrading our emergency medical services." He said it could be done without new scientific breakthroughs if present knowledge were applied more effectively.

"To help in this effort," he said, "I am directing the Department of Health, Education and Welfare to develop new ways of organizing emergency medical services and of providing care to accident victims. By improving communication, transportation, and the training of emergency personnel, we can save many thousands of lives which would otherwise be lost to accidents and sudden illnesses.

"One of the significant joint accomplishments of the Congress and this administration has been a vigorous new program to protect against job-related accidents and illnesses. Our occupational health and safety program will be further strengthened in the year ahead, as will our ongoing efforts to promote air traffic safety, boating safety and safety on the highways.

"In the last three years, the motor vehicle death rate has fallen by 13%, but we still lose some 50,000 lives on our highways each year —more than we have lost in combat in the entire Vietnam war.

"Fully one-half of these deaths were directly linked to alcohol. This appalling reality is a blight on our entire nation, and only the active concern of the entire nation can remove it. The federal government will continue to help all it can, through its efforts to promote highway safety and automobile safety and through stronger programs to help the problem drinker."

Nixon promised increased attention to the diseases of the heart, blood vessels and lungs "which presently account for more than half of all the deaths" in the nation.

"I will shortly assign a panel of distinguished experts to help us determine why heart disease is so prevalent and so menacing and what we do about it," he said. "I will also recommend an expanded budget for the National Heart and Lung Institute."

He also called upon Congress to act upon his proposals for national health insurance, health maintenance organizations and elimination of the monthly fee now charged under part B of Medicare.

The President said he later will propose legislation "to reform and rationalize" the delivery of social services, including health services.

"We need a new approach to the delivery of social services—one which is built around people and not around programs," he said. "We need an approach which treats a person as a whole and which treats the family as a unit. We need to break through rigid categorical walls, to open up narrow bureaucratic compartments, to consolidate and coordinate related programs in a comprehensive approach to related problems."

In his fiscal 1973 budget, Nixon estimated federal spending on HEW health programs at $18.1 billion, an increase of $1.1 billion over the current fiscal year which ends next June 30. A breakdown under broad categories shows:

HEALTH
(Fiscal years, millions of dollars)

	1971 (Actual)	*1972 (Est.)*	*1973 (Est.)*
Development of Health Resources			
Budget authority	2,293	2,965	2,851
Outlays	2,201	2,446	2,787
Financing Medical Services			
Budget authority	12,657	15,633	20,115
Outlays	11,946	14,214	14,733
Prevention and Control			
Budget authority	360	571	737
Outlays	319	382	619
Offsetting Receipts			
Budget authority	—3	-18	-22
Outlays	—3	-18	-22
Totals			
Budget authority	15,307	19,151	23,681
Outlays	14,463	17,024	18,117

The fiscal 1973 budget calls for a $49 million increase—to $435 million—for delivery of health services programs, including health maintenance organizations, regional medical programs and health planning agencies.

Expenditures for Medicare and Medicaid were estimated to increase by $492 million. The federal share of Medicaid was estimated at $3.4 billion or 55% of the total cost. Outlays for Medicare were estimated at $10.4 billion in fiscal 1973.

Other spending estimates included:

Food and Drug Administration—$179.5 million, an increase of $69.7 million.

National Institutes of Health (mostly biomedical research)—$1.57 billion, an increase of $139 million. Of this, $430 million goes to the Cancer Institute.

The President's Council of Economic Advisers, in its annual report to Congress, cautioned that money alone does not hold the solution to the nation's health problems. New criteria for evaluating medical care should be developed, the Council said.

The Council said that the nation's medical care expenditures totaled $75 billion ($358 per person) in fiscal year 1971, an annual growth rate of 4.3% per capita since 1966.

The federal government announced the first assignments of federal doctors and other health workers to provide direct patient care in rural and big city areas with critical health manpower shortages.

Teams with a total of 68 medical workers, including doctors, dentists and nurses, will be assigned to 18 communities in 13 states to work with such patient groups as Indians, migrant workers, welfare families and minorities.

The first team, a husband-wife, doctor-nurse duo, was assigned to a 14-bed hospital in rural Jackman, Me., in September, 1971. The second team went to work in Immokalee, Fla., in November. March 1 is the target date for assigning the other 16 teams, a spokesman for the National Health Service Corps said.

The Corps was created on Dec. 31, 1970, when President Nixon signed the Emergency Health Personnel Act, which calls for government health workers to provide direct health services to residents of city slums and remote rural areas designated as having critical health manpower shortages.

Dr. David A. Kindig, recruitment chief for the Corps, admitted that the major incentive for doctors to join had been the military draft. All 28 doctors among the 68 initial medical workers were recruited from the Public Health Service (PHS) Commissioned Corps, and "many of them are still fulfilling their military obligations," he said.

The teams also include 10 dentists, 18 nurses and 12 other professionals, including pharmacists, dental hygienists, health educators and lab technicians, Kindig said. Recruitment of some team members, like nurses, may be done at the local level, he said.

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RICHARD J. SAMAHA, M.D. *and*
ROBERT D. WARREN, *Columbia*

Solitary Plasmacytoma of the Vertebral Column

Case Report

Generally, myeloma is a pervasive malignancy of plasma cells with diffuse infiltration into many organs. Plasmacytomas are tumors comprised solely of plasma cells which arise frequently in patients with multiple myeloma during the course of their illness. Usually, the plasmacytomas are observed to arise over areas of involved bone by local extension from the marrow substance. Before perforating the bone cortex, the tumors, by expansion, force the bone to swell and may then be revealed by palpation coupled with the demonstration of an area of lucency on x-ray.[1] Consistent with the usually diffuse nature of myeloma, these tumors have been demonstrated to arise from skull, rib, spine, mandible, maxilla, clavicle, sacrum, ilium, tibia, femur and humerus.[2] Interestingly, visceral and soft tissue plasmacytomas without contiguity to bone have been demonstrated in such sites as brain, spinal cord, upper respiratory tract, lung, skin, gastrointestinal tract, genitourinary tract and breast. These tumors may simulate primary neoplasms, especially since bone marrow examination and serum and urine protein electrophoresis may be normal in these cases.[1, 3] Usually, plasmacytomas are present in multiple foci with osseous lesions as the predominant feature. Most frequently, these lesions are part of the disseminated form of the disease or myelomatosis. Initial presentation of an apparent solitary plasmacytoma often heralds the later appearance of widespread lesions which clinically blend into the picture of multiple myeloma.

True solitary plasmacytoma is an unusual and fascinating disorder. As expected, solitary tumors have been found usually involving bone, but extramedullary lesions, especially of the upper respiratory passages, have been described.[1] Some of these cases of solitary plasmacytomas of bone have been followed for several years without recurrence following surgical resection, usually with additional radiotherapy.[4] The vertebral column appears to be a favorite site for evolution of solitary plasmacytomas; and the tu-

The authors present the case history of a patient who presented with signs and symptoms of rapidly progressing spinal cord compression from an expanding plasma cell tumor of the vertebral column. They discuss the clinical spectrum of this disorder in addition to diagnosis and treatment. Doctor Samaha is Assistant Professor of Medicine, Department of Medicine, Division of Hematology-Oncology and Mr. Warren is a Senior Medical Student at the University of Missouri School of Medicine.

mor usually confronts the physician as a mass compressing the spinal column.[2] A patient was admitted to the University of Missouri Medical Center (UMMC) with an apparent solitary plasmacytoma of the vertebral column manifest clinically as a tumor impinging on the spinal cord. We present this case report and a discussion of the clinical spectrum of this disorder, including diagnosis and treatment.

Case Report

A 62-year-old retired farmer was admitted to the UMMC on Jan. 7, 1971. His chief complaint was weakness in his legs of three months duration progressing to inability to move his legs one week prior to admission. The patient was in his usual state of health until about one year prior to admission when he noticed a sharp pain between his shoulders, which occurred intermittently for about two weeks before disappearing. Three months prior to admission, he noticed the gradual onset of weakness and "tingling" in both lower extremities. Six weeks prior to admission, his private physician diagnosed the condition as osteoarthritis of the spine and treated him with gold injections. Three weeks prior to admission, he was aware of numbness involving his body below the umbilicus and he was no longer able to climb one flight of stairs.

On Dec. 29, 1970, the patient was admitted to a nearby hospital for evaluation of his progressive weakness. On admission, the physical examination was reported to be within normal limits except for diminished pinprick sensation starting one inch below his umbilicus. Chest, dorsal spine and lumbar spine films were reported as negative except for the presence of minimal osteoporosis. Because of progressive lower extremity motor weakness, a lumbar and lower dorsal myelogram was performed which was reported to reveal no evidence of a diagnostic abnormality. Cerebrospinal fluid revealed a protein of 600 mg/100 ml with 4 lymphocytes/cu mm. Because the weakness progressed to inability to voluntarily move his lower extremities, the patient was transferred to UMMC on Jan. 7, 1971.

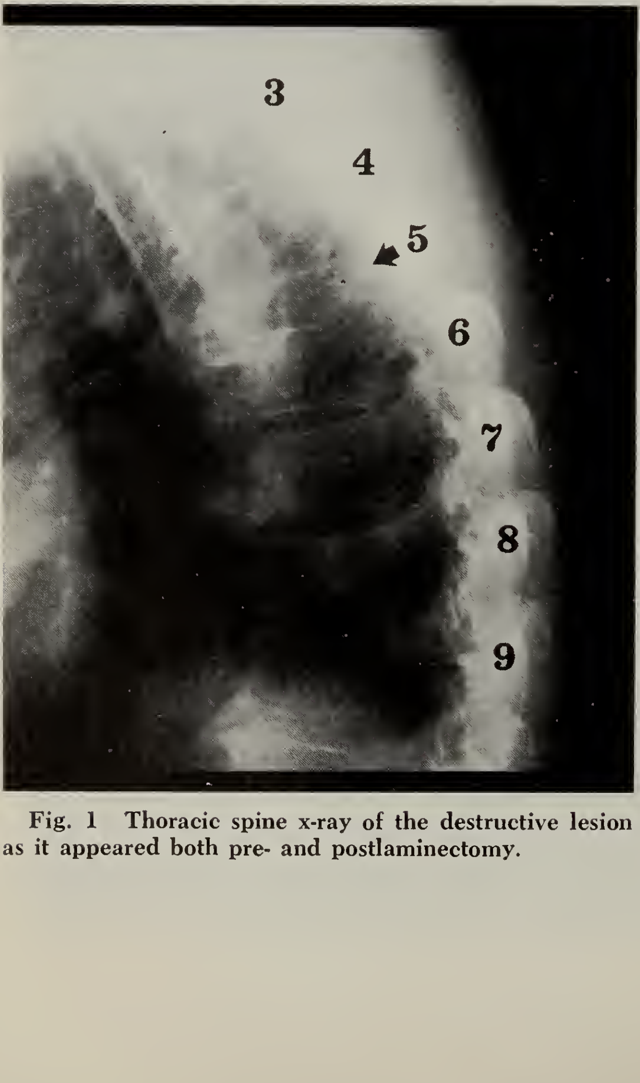

Fig. 1 Thoracic spine x-ray of the destructive lesion as it appeared both pre- and postlaminectomy.

On admission to UMMC, the patient expressed a chief complaint and history as documented above. Physical examination revealed a moderately obese, white man, appearing his stated age of 62, afebrile, with a blood pressure of 160/95 and pulse rate of 100 to 110 beats/min. The physical examination revealed the following abnormalities: (1) inability of the patient to voluntarily move his lower extremities, although they could be passively flexed at the knee and hip; (2) mild tenderness over T_5 spinous process; and (3) decreased pain and touch sensation up to the T_5-T_6 distribution area. The deep tendon reflexes were hyperactive at the knees and at the ankles, and sustained ankle clonus was present bilaterally. Babinski's sign was present bilaterally.

Admission laboratory values included a normal urinalysis, a white blood cell count of 8,400/cu mm, hemoglobin value of 16.1 gm/100 ml and hematocrit value of 48%. Blood urea nitrogen and serum electrolytes were within normal limits. Spine films revealed a destructive lesion of the fifth thoracic vertebra (Fig. 1).

Because of the rapidly progressing spinal cord compression at T_5, the patient underwent a decompression laminectomy at the T_4-T_6 level on Jan. 8, 1971. Preoperative diagnosis was metastatic lung carcinoma. At surgery, a grayish-colored, friable epidural tumor was noted at T_5 with complete destruction of the vertebral body. The epidural tumor did not penetrate the dura mater but caused a 30 degree angulation of the spinal cord. The tumor could be only incompletely removed and specimens for tissue examination revealed a plasma cell tumor. Subsequently, laboratory and x-ray studies were performed to determine the presence of disseminated multiple myeloma. These included Bence Jones protein, serum and urine protein immuno-electrophoresis and a bone marrow aspiration. All of these tests were within normal limits (Table 1). Skull x-rays and a metastatic bone series also were within normal limits.

Postoperatively, the patient had an immediate improvement in strength and sensory testing. Neurological examination on Jan. 12, 1971 revealed that the patient was able to voluntarily move his lower extremities at the hip, although this was decreased from normal. The knee and ankle deep tendon and reflexes continued to be hyperactive. Babinski's sign

TABLE 1

Test	*Results*
Hgb/Hct	14.6 gm% /44%
WBC	4,500/mm^3
Differential	
Polys	69
Lymphs	23
Monos	7
Eos	1
Platelets	330,000/mm^3
Serum Ca^{++}	9.0 mg%
Serum inor. phos.	3.4 mg%
BUN	17 mg%
Uric Acid	5.2 mg%
Urine	
Bence Jones Protein	Negative × 2
Immunoelectrophoresis	Negative, small amount albumin only
Serum:	
Protein immuno-electrophoresis	Normal pattern
Bone marrow	40% cellularity; M:E ratio—2.7:1; normal erythroid and granulocyte maturation; megakaryocytes—normal; plasma cells = 4% of 400 cells counted.

TABLE 2

Date	*Event*
1 yr. P.T.A.	Pain between shoulders
3 mos. P.T.A.	Weakness and tingling in legs
3 wks. P.T.A.	Numbness over lower half of body
1 wk. P.T.A.	Unable to climb stairs; DTR's normal; Babinski sign absent; myelogram—negative; CSF Protein = 600 mg%.
Admission to UMMC	
1/7/71	Unable to move legs; sensory changes at T_5-T_6 level; DTR's hyperactive; Babinski sign positive bilaterally; spine film—lesion at T_5.
1/8/71	Decompressive laminectomy T_4-T_6; biopsy = plasmacytoma
1/10-1/20/71	Work up negative for myelomatosis
1/21-2/4/71	Ten treatments of 300 Rads each to T_3-T_6
2/6/71	Discharge; ambulating with crutches; DTR's normal; no sensory deficits.
11/16/71	No laboratory evidence of myeloma. Normal ambulation.

and clonus were still present bilaterally. Pain, position and sensory function had improved.

Since all of the tumor could not be removed at surgery, a decision was made to treat the patient's vertebral plasmacytoma with radiation therapy. This was accomplished by ten treatments of 300 Rads each, utilizing a 2 MEV Van De Graff generator, through an AP portal 7 cm x 11 cm in size. The irradiation was directed to the T_3-T_6 spinal cord area. The patient continued to regain his motor function with the assistance of a physical therapy program and was discharged on Feb. 6, 1971 to be followed in the hematology outpatient clinic. He was able to ambulate with the aid of crutches, the reflexes were 2+ at the knee and ankle and there was no apparent sensory deficit.

DISCUSSION

It has been estimated that between 17% to 40% of patients with multiple myeloma will manifest central nervous system signs and symptoms during the course of their disease.[1] These manifestations include hemiplegia, paraplegia, convulsions, cranial nerve palsies and peripheral neuropathies. These disorders usually arise directly by diffuse involvement of the nervous tissue with myeloma or indirectly or both by compression of the nervous structure by expanding myelomatous bone or tumor extending from the bone. About 10% of patients with multiple myeloma will manifest spinal cord compression sometime during the course of their illness. Of these patients, about 50% (or 5% of the total) will have cord compression as the presenting sign of the disease.[5] We have no direct estimate of the number of patients who present with cord compression as a solitary plasmacytoma without any other manifestation of the disease.

Our patient illustrates many of the problems encountered in individuals with vertebral plasmacytomas (Table 2). First of all, he has a long history of back pain centering around the later proven area of tumor involvement. Repeated x-rays of the spine did not reveal any destructive lesions, and he was treated for osteoarthritis. Subsequently, he developed weakness in his legs, which was present for at least two months. Then, over a three-week period, this progressed rapidly to paraplegia without sphincter signs. In several series, pain in the back for weeks to years was the first symptom described by patients with myeloma tumor of the vertebral column.[4–7]

The pain may be nonspecific in character and was often diagnosed initially as arthritis. Eventually, the pain becomes severe and persistent with both local and radicular features. In one series of epidural tumors, 90% of the patients had pain as the first symptom, but it was weakness of the lower extremities that prompted the patients to seek medical attention.[7] These patients usually have a clear level of sensory deficit in addition to lower extremity weakness or paralysis. Loss of sphincter control is usually a late and ominous sign following extensive motor deficits.[7–9] The rate of progression of spinal cord compression is variable but extremely important with respect to the posttreatment expectation of return of motor function. Those patients who were ambulatory prior to therapy were distinctly more likely to recover complete motor activities than those patients with complete paralysis.[8, 10] The presence of sphincteric symptoms and signs implies a poor prognosis with respect to eventual patient ambulation. Our patient had a rapid progression from weakness to paralysis of the lower extremities, but emergency decompressive laminectomy followed by irradiation to the tumor site resulted in a gratifying return of motor and sensory function.

The diagnosis of apparent solitary plasmacytoma, as in this case, must rest upon biopsy evidence of the tumor in addition to a thorough diagnostic evaluation. Occasionally, these tumors will give rise to serum monoclonal gammopathies which disappear upon treatment of the tumor.[11] Nerenberg[12] has described two cases of apparent solitary plasmacytoma of the spine diagnosed at surgery by a 40-minute cellulose acetate electrophoresis of extracted tumor tissue. In both cases, the x-ray and frozen section of the tumor were misleading. In plasma cell tumors of the vertebral column, there are no distinctive x-ray findings.[9] Destruction of the pedicles, which was thought to be more diagnostic of metastatic lesions from other primary tumors, was found in 50% of 22 cases of cord compression by plasmacytomas in McKissock's series.[9] Spine x-rays at our medical center revealed a destructive lesion of the fifth thoracic vertebra. Clarke[6] has commented that x-rays may show a mediastinal mass as a result of lateral extension of the tumors and no boney destructive changes. As with other tumors causing epidural compression of the spinal cord, examination of the spinal fluid usually reveals an elevated protein level with normal sugar and cell content.[13] As found in the present case at surgery, the dura mater provides a determined barrier to the expanding plasmacytoma, and only rarely does invasion of the dura mater occur.[6] If immunoelectrophoresis of the cerebrospinal fluid reveals a myeloma protein, then one has to consider an additional cerebral plasmacytoma or direct involvement of the spinal cord or brain by myelomatous tissue.[14]

Most frequently, plasmacytomas of the vertebral column arise in the thoracic spine with the fourth, fifth and sixth thoracic vertebrae being most often involved.[6] (Interestingly, other investigators report that the thoracic spine also is more frequently involved by epidural metastases from a wide variety of primary tumors including lymphoma, lung, breast, endocrine, renal and gastrointestinal tract.[8, 10]) The compression of the spinal cord usually arises from collapse of involved vertebra or direct extension of tumor from an adjacent vertebra.[5, 6] In order to provide an adequate guide to operative intervention or radiation therapy, myelography should be performed to outline the limits of the tumor. Barron and co-workers[13] have suggested that both lumbar and cisterna magna instillation of dye be performed to delineate both caudal and cephalad extension of epidural tumors since the mass may be distributed over a considerable distance. Interestingly, in our patient, the myelogram from the referring hospital was reported to be negative. In patients with rapidly progressing neurological deficits from an epidural tumor of any type, most investigators agree that laminectomy should be performed.[4, 7, 8, 10] While the presence of vertebral collapse in plasmacytoma has been suggested as an indication for surgical intervention,[15] some investigators have reported good results with radiation therapy alone.[6, 16] These tumors are generally soft, unencapsulated and friable, making total surgical removal impossible and postoperative irradiation to the tumor mandatory.[4, 9] All reported long survivors of vertebral plasmacytoma were treated with surgery and irradiation. Murphy and Bilge[17] recommend that the treatment field "should extend from below the myelographic block level to at least two vertebral interspaces above the upper limit of known or suspected involvement." In general, a tumor dose of between 2,000 and 3,000 Rads delivered in equal increments is recommended for these radiosensitive tumors.[17–19]

It has been suggested that the term, solitary plasmacytoma of bone, be reserved for tumors in patients who, following treatment, have had at least a three-year interval free of disease,[2] whereas other investigators[4] have concluded that this is of dubious practical value since patients with treated solitary lesions of the vertebral column may manifest disseminated myeloma as long as 21 years post-therapy. Svien *et al*[20] reviewed the records of 524 patients with the diagnosis of myeloma made between the years 1930 to 1950 at the Mayo Clinic. Of these patients, 31 (6%) were paraplegic when the diagnosis was made. The details of the cases are rather scanty; but of these 31 paraplegic patients, seven underwent laminectomy and in none was the diagnosis established preoperatively. In two of the seven cases, the tumor was considered to be a solitary plasmacytoma with destruction of the vertebra. Both of the latter patients received postoperative irradiation and remained free of disease from two to four years and then had reappearance of myeloma. Kaye *et al*[21] reported a patient with vertebral plasmacytoma, diagnosed by tissue sections following laminectomy for cord compression, who had no marrow or serum evidence of disease for nine years and then manifested disseminated myeloma. Cohen *et al*[4] described 18 patients with vertebral myeloma who survived five to 21 years after diagnosis and treatment. Nine of the 18 were treated by biopsy and irradiation only, the other half by surgical decompression and irradiation. Six (three from each treatment group) of these patients were alive and free of disease from five to 15 years after initial treatment. One patient, without an initial bone marrow and serum examination, survived 21 years after surgical decompression and irradiation and then developed disseminated myeloma. It is apparent that this tumor can present and behave in a variable fashion. We were unable to document any other evidence of myeloma in our patient despite a thorough search. Our patient's case has to be considered that of an "apparent" solitary plasmacytoma of the vertebral column, and he will be followed in our hematology clinic for further evidence of disease.

Summary

Multiple myeloma is usually a diffuse malignancy of plasma cells with infiltration into many organs. In this report, we have presented the case history of a patient who presented with signs and symptoms of rapidly progressing spinal cord compression from an expanding plasma cell tumor of the vertebral column. Emergency decompressive laminectomy and postoperative irradiation resulted in substantial return of motor function to the patient. Complete laboratory and x-ray studies revealed no other evidence of myeloma. We have reviewed the literature of solitary plasma cell tumors of the vertebral column in the discussion of this patient's case. Of considerable interest is the fact that these patients may survive many years free of disease (up to 21 years in one series) after treatment only to have the myeloma reappear in the disseminated form.

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Angina Pectoris Treated by Aorta to Coronary Vein Graft

BYPASSING OBSTRUCTING AREAS of the coronary artery by means of a vein graft from the aorta to the distal coronary vessels is currently being widely employed in the treatment of patients with obstructive coronary artery disease and angina pectoris. This report reviews our experience over the 16 months which involved the treatment of 78 patients.

MATERIAL AND METHOD

From Dec. 15, 1969 to April 15, 1971, 78 patients received 156 aortocoronary saphenous vein bypass grafts. Almost half of the patients were in the sixth decade. The oldest was 68 years old; the youngest was 33. Ten were women (Table 1). The most common indication for operation was angina pectoris unresponsive to medical therapy with less frequent indications being congestive heart failure and arrhythmia (Table 2). Two or more vein grafts were used in 81% (63) of the patients, while 16 patients had triple vein grafting (Table 3).

TABLE 1

CASE DISTRIBUTION

Years	*Male*	*Female*	*Total*
30-39	7	1	8
40-49	16	2	18
50-59	32	3	35
60-69	13	4	17

TABLE 2

INDICATION FOR OPERATION

Angina pectoris	61
Angina pectoris and congestive failure	13
Angina and arrhythmia	3
Arrhythmia	1

TABLE 3

CORONARY ARTERIES GRAFTED

RCA, LAD	37
RCA, LAD, CCA	16
LAD, CCA	9
LAD	9
RCA	6
RCA, CCA	1

The patients were evaluated for metabolic abnormalities. Serum cholesterol, serum uric acid, fasting blood sugar and hemoglobin levels were determined in all; serum lipoprotein electrophoresis in most; and glucose tolerance, total serum lipids, serum triglycerides and serum beta lipoprotein in many. Selective coronary cineangiography and left ventriculography were performed preoperatively in all instances to clearly delineate the pathologic anatomic changes in the coronary arteries, left ventricular function and the presence or absence of mitral insufficiency.

The vein grafts were inserted employing extracorporeal circulation with moderate hypothermia, electrical ventricular fibrillation and left ventricular venting. Periods of myocardial ischemia of generally 20 minutes or less were used to facilitate vein graft suturing to the coronary artery in a dry, unobscured, quiet field. The vein grafts, generally obtained from the leg, were sutured to the ascending aorta over a partial excluding clamp prior to the onset of extracorporeal circulation. Vein graft patency was assessed in most patients one to two-weeks postoperatively prior to discharge from the hospital.

Flow measurements were obtained at the time of operation prior to wound closure by noncannulating electromagnetic square wave flow meter (Carolina Medical Electronics). The effects of occlusion, hyperemic response and response to injection of papaverine HCL were assessed. These maneuvers test the reactive capacity of the vein graft and the distal arterial bed. A typical tracing is illustrated in Fig. 1.

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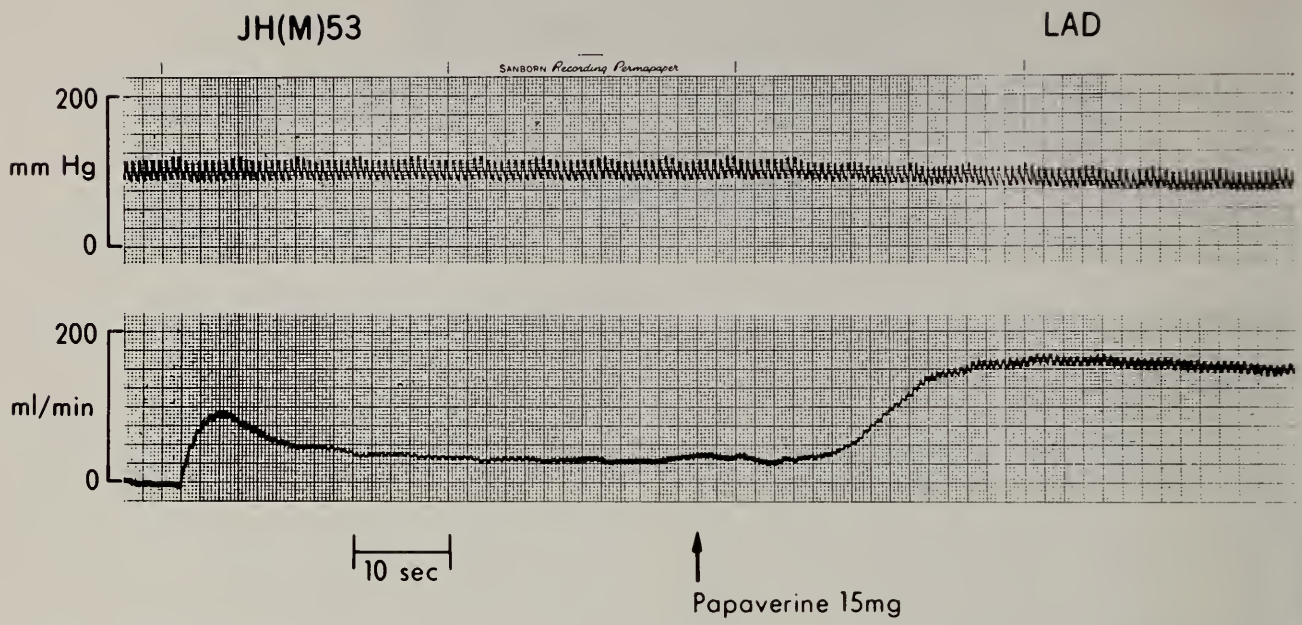

Fig. 1 Radial artery pressure and saphenous vein graft flow recording in a patient with an aortocoronary vein graft to the left anterior descending coronary artery. The initial flow after occlusion results in a hyperemic response to 90 ml/min subsequently falling to a base line of 35 ml/min. Injection of 15 mg of papaverine HCL into vein graft results in a flow of 165 ml/min.

Results

Of 78 patients undergoing 156 vein grafts, eight died in the postoperative period for total in-hospital (30-day) mortality of 10.4%. The primary cause of death was arrhythmia in three, hemorrhage in three, hyperosmolar coma in one and cerebral vascular insufficiency in one. Of 144 vein grafts studied in the immediate postoperative period either directly or by cineangiography, 131 (91%) were patent. The patency rate was 88% for left anterior descending branch (LAD), 92% for circumflex branch of left coronary artery (CCA) and 95% for right coronary artery (RCA).

Sixty-four patients are remote enough from operation for evaluation of relief of symptoms. Eighty-four percent are free of the pain of angina pectoris without medication and with increased activity. Eight percent are improved and 8% consider themselves unimproved. None of the patients who had arrhythmia as one of the indications for the operation has had complete reversal of electrical instability at rest or with exercise, and they continue to receive antiarrhythmic drugs.

Flow studies in vein grafts indicate an average basal flow of approximately 50 ml/min. The majority of grafts demonstrated a hyperemic response of a 50% increase in flow. The average flow response to vein graft injection of 15 mg of papaverine HCL showed a 200% increase (Table 4). A hyperemic response following release of occlusion indicates the vein graft is contributing to an area of myocardium rendered ischemic by its occlusion similar to the response noted following occlusion of a normal coronary artery to heart muscle.[1] Response following papaverine injection indicates the reactivity of the coronary vascular bed and the capability of the bypass graft to deliver additional flow, if necessary. Papaverine HCL has been used to evaluate peripheral arterial vein bypass grafts at operation and has been felt to mimic the demands of exercise.[2]

Metabolic abnormalities were detected in the majority of patients (Table 5). Those determina-

TABLE 4

AORTOCORONARY SVG

	Flow (ml/min)		
	*BF**	*RH†*	*PAP‡*
LAD	50	78	158
(68)	(6-125)	(6-205)	(18-350)
RCA	52	84	170
(58)	(8-125)	(24-180)	(32-330)
CIRC	51	64	130
(25)	(13-95)	(20-120)	(70-225)
All	51	77	157

* Basal Mean Flow.
† Peak Flow of Hyperemic Response.
‡ Peak Flow following injection of 15 mg papaverine HCL into vein graft.
Figures are average flows, Figures in ( ) is range observed.
LAD—Left anterior descending branch.
RCA—Right coronary artery.
CIRC—Circumflex branch of left coronary artery.

TABLE 5

METABOLIC DERANGEMENT

Determination	*% Abnormal*
Serum prebeta lipoprotein	91.7
Postprandial blood sugar	81.3
Serum triglycerides	67.2
Serum cholesterol	59.0
Hemoglobin	35.9
Serum beta lipoprotein	34.1
Blood sugar (fasting)	23.1
Serum uric acid	19.25
Serum total lipids	10.35

tions with the greatest percentage of abnormality were two-hour postprandial blood sugar and serum cholesterol, triglycerides and prebeta lipoproteins. Most of the patients could be categorized as exemplifying Type IV Hyperlipidemia according to Fredrickson and Lees' classification.[3]

Discussion

The use of the saphenous vein as an arterial bypass graft in the femoral popliteal region has yielded excellent results.[4] With this background and because of dissatisfaction with other forms of direct coronary artery surgery, i.e., endarterectomy and patch grafting and indirect myocardial revascularization, i.e., internal mammary implantation, the use of autogeneous vein bypass grafts were explored. Kahn, in 1966, used aortocoronary vein grafting in two patients.[5] Favaloro, in 1967, used the interposed saphenous vein graft in an excised right coronary segment and proposed its more extensive use.[6] Johnson, Flemma and Lepley, in 1968, demonstrated the effectiveness of end-to-side vein grafting in distal small vessels of the coronary system.[7]

The encouraging results of these groups have resulted in the more widespread utilization of this form of therapy. It currently is being used with increasing frequency in treating angina pectoris, congestive heart failure and myocardial infarction or preinfarction angina in patients with obstructive coronary artery disease. The procedure is generally performed with an acceptable mortality comparable to most cardiac procedures with a good recovery rate and reversal of symptoms. The mortality rate varies with severity of the disease. Poor left ventricular function, ventricular aneurysmectomy and valve replacement are associated with a higher mortality rate than uncomplicated, obstructive coronary arteriosclerosis. At the present time, we consider the major indications for operation to be angina pectoris, angina pectoris and congestive heart failure and pump failure in acute myocardial infarction. Its use remains equivocal in abolishing and preventing arrhythmias.

A report of the experience which involved 78 patients with angina pectoris who were treated by aortocoronary vein bypass grafts during a 16-month period. The authors are from the Department of Surgery, St. Louis University; Unit II Surgery, John Cochran Veterans Administration Hospital; and the Department of Medicine, St. Louis University. This paper was presented by Doctor Kaiser before the 113th Annual Session of the Missouri State Medical Association. The study was supported by the USPHS Grants HE-06312 and HE-05299-10 and the Missouri-St. Louis Heart Association.

Addendum: The series now includes 252 patients with 575 vein grafts with essentially similar results.

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A Night to Remember! The Presidents' Banquet and Dance!

114th MSMA ANNUAL SESSION

April 6-9, 1972 Muehlebach Hotel, Kansas City

FREDERICK L. REMARK, M.D. *and*
PAUL M. WEEKS, M.D., ***St. Louis***

Airless Paint Gun Injury of the Hand

A Surgical Emergency

THE PURPOSE of this article is to call attention to an initially innocuous appearing injury of the hand which produces disastrous end results if not treated immediately. The airless paint gun has become standard equipment for the painter. Phenomenal delivery of paint is accomplished by introducing compressed air—up to 125 pounds per square inch (psi)—into a hydraulic pump system which augments the paint hydrostatic pressure 26 to 40 times. Thus, an airless gun can deliver paint under pressures of 3,250 to 5,000 psi.

The airless gun, per se, permits (1) on-off control of paint release and (2) predetermination of spray pattern size. The nozzle of the airless gun has a bore of 0.031 inch. Attached over the nozzle is a spray cap secured by a retainer. The opening in the spray cap can vary from 0.007 to 0.040 inches and is drilled at an angle to allow various widths of spray patterns. The extremely high pressures at the spray cap are rapidly dissipated by atomization of the paint.

This case is reported to emphasize (1) the initial, rather insignificant appearance of the injury, (2) the actual severity of the injury and (3) the methods of management.

Athough airless paint gun injuries of the hand may appear insignificant initially, they constitute surgical emergencies. Tissue destruction results from direct action of the chemical on the tissue and ischemia secondary to edema formation. Treatment demands immediate removal of the offending chemical and prophylactic decompression of the involved part. Methods of management are emphasized in this paper. The authors are from the Hand Rehabilitation Center, Division of Plastic Surgery, Washington University School of Medicine.

CASE REPORT

A 53-year-old white man was cleaning an airless paint gun by spraying paint thinner through it. The air compressor was operating at 90 psi (rendering a nozzle pressure of 2,700 psi). To remove a tight spray cap retainer, the gun was held in the left hand and a small wrench, encircling the spray cap retainer, was being manipulated with the right hand. As his grip tightened, the trigger was depressed. The right index digit, resting snugly against the spray cap, received a momentary burst of paint and thinner which entered the skin through a small puncture wound. The hand was not painful initially, but within an hour had become excruciatingly painful.

He presented in the emergency room two hours after the accident. The hand was moderately swollen. The point of entry was a 1 mm hole on the radial side of the index digit at the base of the proximal phalanx (Fig. 1). The index digit was anesthetic and pale in color. The remaining digits were pink. X-rays of the hand revealed a small subcutaneous collection of paint at the point of entry (Fig. 2).

Axillary block anesthesia was utilized at the initial operation. The index digit was opened through a midlateral incision extending through the point of entry and continuing into the palm. After evacuating the paint, the wound was thoroughly irrigated with saline. Kerosene thinner was irrigated from the palm. Decompression of the neurovascular bundles to the index and long digits was gained by opening the overlying palmar fascia. The remaining digits did not appear to require decompression.

Eight hours postoperatively, all eight digits were blue and exhibited marked delay of capillary filling. The digits were anesthetic over the median nerve distribution. Sensation over the ulnar digital nerves was intact. The patient was returned to the operating room immediately.

The second operative procedure was complicated by marked tissue edema and friability. The signs and symptoms of median nerve compression required division of the transverse carpal ligament. The median nerve was pale and exhibited a depression beneath the volar carpal ligament. The superficial vascular arch in the palm was completely exposed by exicision of the overlying palmar fascia. The index digital vessels were thrombosed at their origin from the superficial arch. The long and ring digits were decompressed through midlateral line incisions which gaped open immediately. Digital arterial blood flow improved, but digital venous return was inadequate. This necessitated a second incision into the markedly edematous dorsum of the

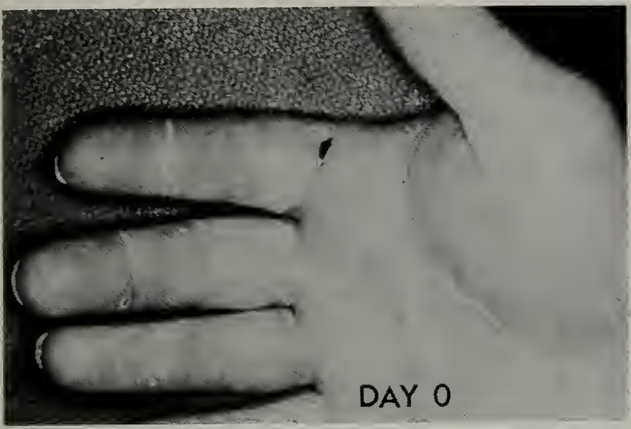

Fig. 1 The small entry point appears insignificant.

hand. Kerosene was irrigated from the base of the dorsal wound. This incision, by decompressing the dorsal veins of the hand, markedly improved digital venous return. After copious saline irrigation of the wounds, a loose hand dressing was applied.

Postoperatively, the venous return of the digits, particularly the long, varied markedly from day to day. The digits remained anesthetic over the median nerve distribution. Four days after injury, the hand was markedly swollen (Fig. 3). Necrotic fat, pus and kerosene were expressed through all incisions. Subsequently, the index digit required amputation. The hand healed slowly. Median nerve function was completely recovered over a period of months. Function gradually improved, but strength was limited in the hand (Fig. 4).

Discussion

Alcohols, turpentine and mineral spirits are the predominant components of paints sprayed through an airless paint gun. Tissue destruction from injection of paint thinners, etc., results from (1) direct chemical action of the agent on the tissue and (2) ischemia secondary to edema formation. Turpentine and mineral spirits have been injected subcutaneously in guinea pigs to produce experimental abscesses.[1] This evoked an intense and inflammatory reaction, particularly about vessels. These vessels eventually become thrombosed. Necrosis of fat, muscle and skin was observed. The reparative processes were prominent within five days and the necrotic foci encapsulated by eight days. The studies were not extended beyond eight days to determine if residual fibrosis from such injury is minimal or nonexistent as noted clinically.[2] The median neuropathy noted in our patient probably resulted from thrombosis of nutrient vessels to the nerves.

Preoperative evaluation of the injured patient should include the following:

(1) Reconstruction of the accident may be

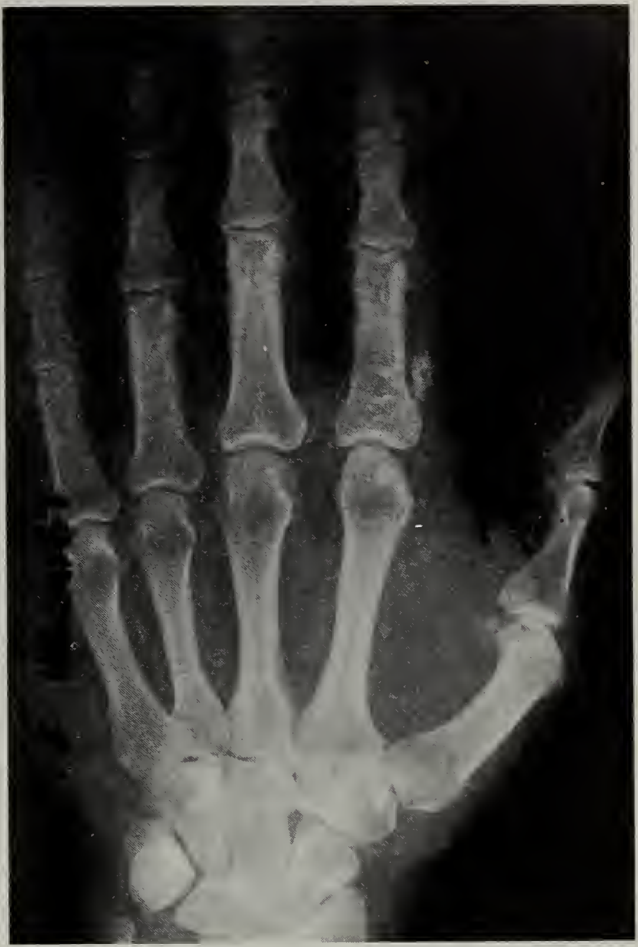

Fig. 2 Roentgenograms are of value when lead based paints have been injected. Note small entry point and subcutaneous localization of paint. Paint thinner is radiolucent so roentgenograms will not indicate extent of thinner injection.

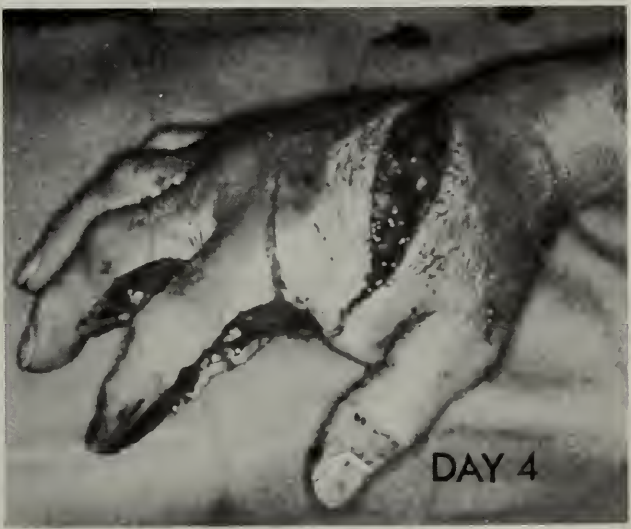

Fig. 3 Four days post-injury, the hand is markedly swollen from the intense and extensive inflammatory reaction. Decompression of palmar, digits and dorsum was necessary to preserve digits.

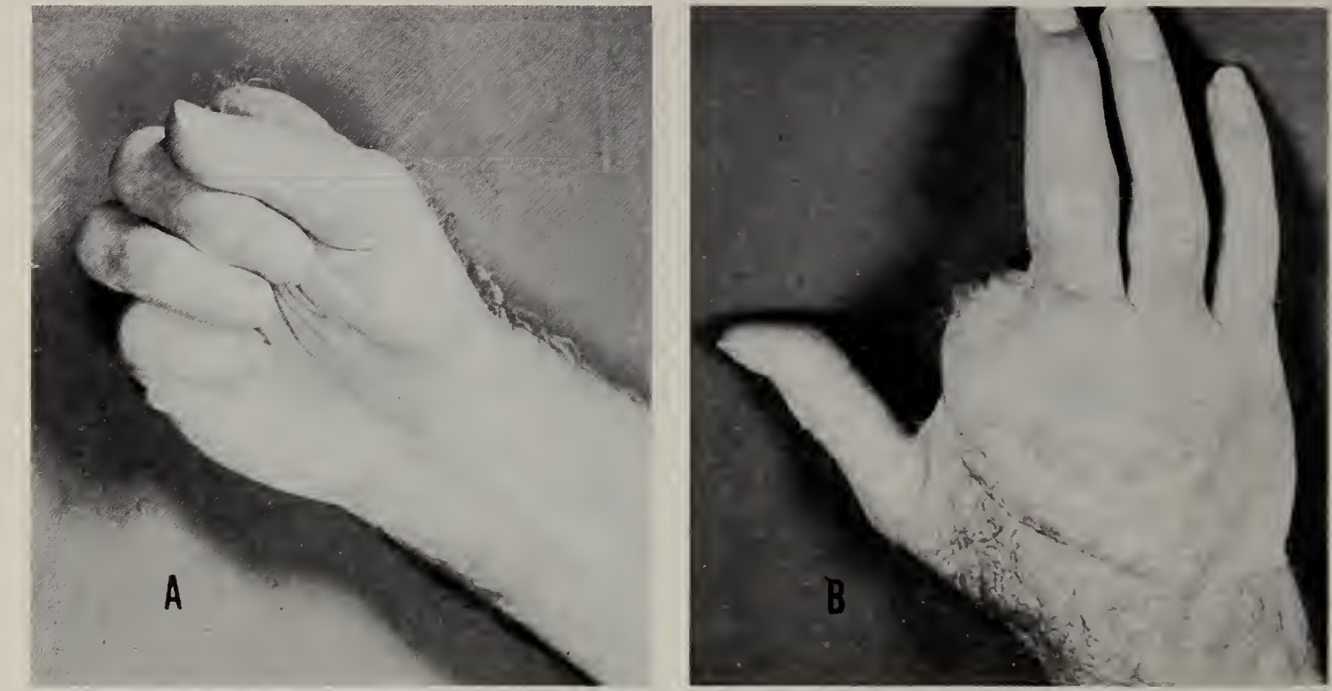

Fig. 4 (A) The index digit has been amputated. At one year after injury, flexion is adequate. (B) Extension is normal. Index stump was revised later.

of value in determining the extent of injection, particularly when a nonradiopaque material has been injected. In our case, reconstruction of the accident suggests that paint thinner could have been injected into the palm and dorsum of the hand. Since only a small amount of paint was left in the gun, the majority of injected material was radiolucent paint thinner. Accurate reconstruction of the accident would have necessitated exploration of the dorsum of the hand at the initial operation, preventing some of the later swelling and subsequent venous obstruction. The entry point at the midlateral line of the digit would indicate that thinner could be sprayed either onto the dorsal or palmar aspect of the hand.

(2) The type of material injected is important. If only a radiopaque paint was injected, x-ray would reveal the extent of injection and the degree of successful removal of the paint. If the injected material is not radiopaque, x-rays are of little value.

Treatment is directed at rapid and thorough removal of the offending agents and prevention of ischemia secondary to edema by adequate decompression of the vasculature.

Operative removal of the injected paint or thinner or both is accomplished by debridement of the entry point and pathway. Paint in the fat beyond the distal palmar crease is best removed by excision of the fat. Copious irrigation aids removal of any foreign material not fixed to the tissues.

Decompression of the swollen hand is directed primarily to relief of vascular obstruction. The venous system is more readily obstructed since its pressure is low. Venous drainage of the hand and digits is accomplished through two major systems: (1) superficial system—the basilic and cephalic veins extending from the dorsum of the hand to the antecubital fossa and (2) deep system—small digital veins drain into palmar superficial and deep arches and, thence, into the veins accompanying the radial and ulnar arteries. The majority of venous drainage is over the dorsum of the hand. However, the deep system through the palm can provide adequate drainage of the digits. Cyanotic digits indicate compromise of both venous systems.

Decompression of a digit, the palm or the dorsum of the hand may be required singularly or in combination. A digit can be decompressed through a midlateral line incision. Subcutaneously, on the volar aspect of the incision, fascia is noted extending from the skin to the bone (Cleland's ligament). This fascial attachment is responsible, in part, for fixation of skin. This ligament delineates the volar compartment which contains both neurovascular bundles and the tendon sheath. To decompress this volar compartment, the fascial attachment between the skin and the bone must be divided. Decompression of the palmar vessels requires opening each tunnel formed by the palmar fascia and its vertical projections to the metacarpals. Opening the "roofs" of these tunnels is adequate for decompression. Decompression of the dorsum of the hand requires only incision in the skin, care being taken to preserve the underlying veins.

How extensive a decompression should be attempted? If involvement is limited to a digit, it should be decompressed through a midlateral line incision. If paint is in the palm, each digital vessel should be decompressed by opening the palmar fascia. If paint is in the dorsum of the hand, then a dorsal incision is necessary. When the digits have inadequate venous return, one must assure decompression of the superficial or deep venous systems or both. If one venous system is thrombosed, then the other system must be decompressed.

Reports prior to 1967 revealed that paint gun injection of a ray uniformly resulted in amputation of the digit. More recently, a report of 14 cases provided more encouraging results.[2] Six cases with injury limited to a digit resulted in amputation of the involved digit when removal of paint and decompression were delayed. In six similar cases with immediate removal of the paint and decompression of the digit, skin loss was limited and good functional results were obtained. Two patients sustained extensive injection of paint into the palm. These were treated with early removal of paint and extensive decompression and obtained excellent functional results.

SUMMARY

Perforation of the skin by paint or related products sprayed from an airless paint gun constitutes a surgical emergency. Tissue destruction from injection of paint or paint thinner results from (1) direct chemical action of the agent on the tissue and (2) ischemia secondary to edema formation. Treatment is directed at rapid and thorough removal of the offending agents and prevention of ischemia secondary to edema by adequate decompression of the vasculature. Preoperative and postoperative roentgenograms help determine extent of spread of radiopaque paint and degree of removal.

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The Thoracic Societies of Illinois, Indiana and Missouri are cosponsors of a three-day Clinical Conference to be held at Stouffer's in St. Louis on Friday evening, March 3 through 5.

Guest speakers will include Karl Pfuetze, M.D., Medical Director, Suburban Cook County TB Sanitorium; John A. Pierce, M.D., Associate Professor of Medicine, Washington University; Thomas A. Dew, Jr., M.D., Ellen Boyce Fellow in Pulmonary Medicine, Washington University; Robert M. Senior, M.D., Assistant Professor of Medicine, Washington University; Howard Linder, M.D., Fellow in Pulmonary Medicine, Washington University, Julia M. Jones, M.D., Professor of Clinical Medicine, Columbia University; Robert Briney, M.D., Senior Staff Physician, Suburban Cook County TB Sanitorium; Marcia A. Miller, Ph.D., Illinois State University and Peoria Medical School and Ralph C. Wilmore, M.D., Chief, TB Service, Veterans Administration Hospital, Indianapolis.

Moderators will include: Peter Kinsella, M.D., President, Missouri Thoracic Society; Eric M. Peterson, M.D., President, Illinois Thoracic Society and Morgan E. Grieve, M.D., President, Indiana Thoracic Society.

The lecture-presentations, while aimed at furthering the education of professionals in the field of respiratory disease control, are open to the public. Call the TB Society at 314-241-1554 for more information.

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Preoperative Evaluation of Patients For Major Pulmonary Surgery

A Review

ON ENTERING THE DECADE of the 70s, we are eagerly awaiting for the biochemists, cytologists, geneticists, immunologists and virologists to put order in Pandora's Box and to correlate the flood of data concerning the "Cancer" cell so that, as clinicians, we will not only have an etiological diagnosis but, also, a rationale of therapies.

Unfortunately, the decade of the 60s looms over our shoulders to remind us that even with our marked technological advances of the infantile space age, we have only a single, statistically significant mode of therapy to offer the patient with a cancerous pulmonary lesion. This, too, is as archaic as its descriptive cliché, namely "to separate the patient and his disease." Even more regrettable is the fact that resection is feasible in only 20% to 40% of all cases and resection is probable in only 30% to 50% of all thoracotomies from this purpose.[1, 2] A further tragedy is the fact that in spite of the Surgeon General's report,[3] the upward spiral continues for both the rate of smoking and the incidence of pulmonary cancer occurring in patients as they reach the height of their productivity.

Thus, clinicians have two basic problems:

1. The early detection of the cancerous lesion.
2. The evaluation of the patient's capability for a useful survival subsequent to major pulmonary resection—his only hope for cure. Over the decade of the 60s, we have seen this task assumed by many specialists besides the surgeon with little improvement in statistics. This fact is reconcilable when we realize that, as Rubin so aptly stated, "assuming the cancer arises from one cell undergoing proliferation, at least 20 generations are required to amass a billion tumor cells which would appear as a 1 cm nodule on a film, only ten more generations are required for the nodule to reach the size of a mass which could occupy the entire hemithorax."[4]

So with a considerable degree of urgency, we find it relatively easy to declare physiologically inoperable an elderly individual with cardiomegaly, recurring congestive failure and severe disabling pulmonary emphysema. At the other end of the spectrum, we pursue with vigor the 40-year-old, robust, healthy man with an asymptomatic pulmonary lesion. Between, however lies the large gray area of difficult decisions which statistically includes the greatest number of patients.

In view of this great indecisive area, we have undertaken a retrospective review of our experience for the past eight years with the hope of achieving a level of prognostic predictability for the preoperative patient. The literature over the past 20 years is fruitful with reports of clinical and physiological studies. Some have such a narrow spectra that they lack clinical applicability. Others, such as that of Van Norstrand,[5] indicate a serious lack of confidence in many physiological studies in this area. G. Gorovienko[6] of Russia also has attempted, in a reasonably accurate manner, to classify patients preoperatively in a highly sophisticated category that is so

The authors present a retrospective review of 123 selected patients evaluated for resection of pulmonary carcinoma using electrocardiograms, pulmonary function studies, cardiac catheterization and pulmonary angiography. All patients in the study were clinical candidates for surgery. Doctor Lampton is a Docent Associate at the University of Missouri-Kansas City School of Medicine. Drs. Averill, Benoit and Mayer are in private practice and lecturers at the School of Medicine.

complex that it is almost denied clinical application. Thus, we have proceeded with simplicity and clinical applicability into the gray chasm.

Methods

As expected with a retrospective study, we have made a progressive accumulation of data that has increasing depth and refinement with time, experience and availability of techniques in our three hospitals (Research Hospital, St. Luke's Hospital and St. Mary's Hospital in Kansas City).

The clinical team has remained unchanged throughout the study. There are 123 patients included who have varying degrees of evaluation, all of whom have had pulmonary cancerous lesions. The evaluations included pulmonary function studies (vital capacities, $FEV_{1\text{-}2\text{-}3}$ maximum mid-expiratory flow, maximum voluntary ventilation, peak flows), electrocardiograms, cytological exams and right heart catheterizations with pressures and blood gas studies in the right atrium, right ventricle, pulmonary artery and in either brachial artery or aortic arch. The latter studies were performed at rest with room air, after five minutes of exercise and after breathing 100% O_2 for seven minutes. In recent years, pulmonary angiography also has been included. Classification of the patients is broken down into three overall populations, as follows:

1. The inoperable (including both those on a clinical and physiological basis and those technically so at time of thoracotomy).
2. Those undergoing pneumonectomy.
3. Those undergoing lobectomy.

Results

Age: (Fig. 1) The age range of 45 to 84 years with the overall age of 67.2 years. Fifty-seven cases (46.3%) occur in the seventh decade. All fatalities occur above age 62 with the average fatal age being 69.7 years.

Sex: Ten women who were distributed into six inoperable and four undergoing lobectomy. The men were randomly distributed throughout without significance.

Operability

Twenty-six cases (20.3%) were evaluated and were not recommended for surgery; 13 combined poor cardiopulmonary status; four, distant metastasis; five, pulmonary angiographic criteria; and four, pulmonary status. Even though recommended, a single case refused.

Ninety-six cases were recommended with a favorable prognosis for major pulmonary surgery. Twenty-four were found to be inoperable on surgical criteria of metastasis, local extension and/or position, achieving a resectability rate of 75% of the cases recommended.

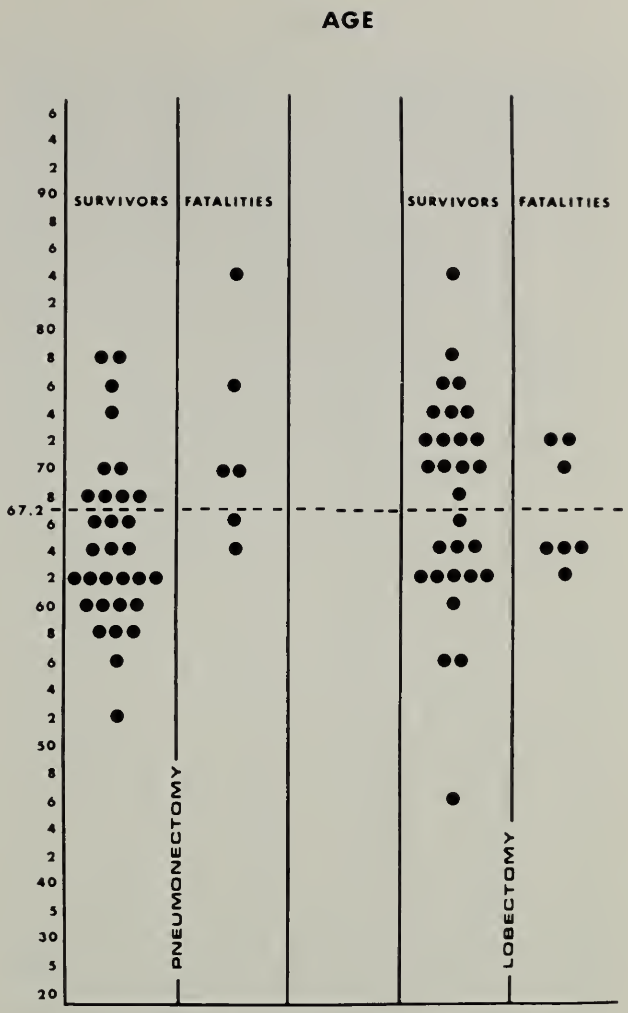

Fig. 1 Patient age distribution by year (median age indicated).

Mortality

Thirty-seven pneumonectomies were performed with 30 patients surviving the initial hospitalization, an 18.9% mortality. Thirty-five lobectomies were performed with seven fatalities for a mortality rate of 20.0%. The overall mortality rate was 19.4%. Nine deaths were solely of the pulmonary type.

Pulmonary Function

Here we have chosen to present only those studies which are currently thought to be most helpful in assessing the patient's ability to move air and in assessing the patient's tendency for an obstructive defect. All pulmonary function

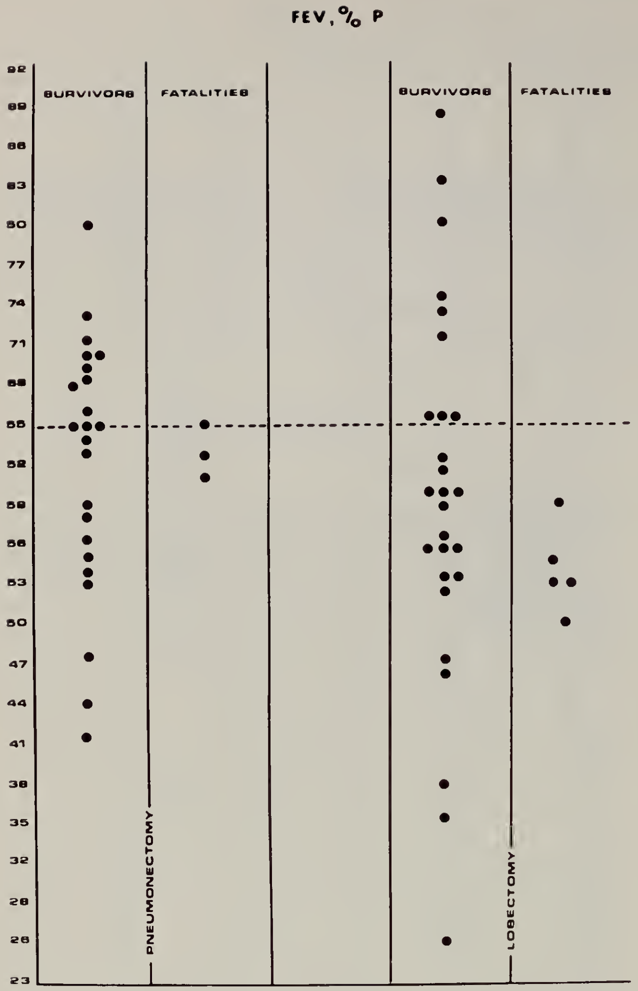

Fig. 2 The percentage of the predicted forced expiratory volume in the first second and its relationship to survival.

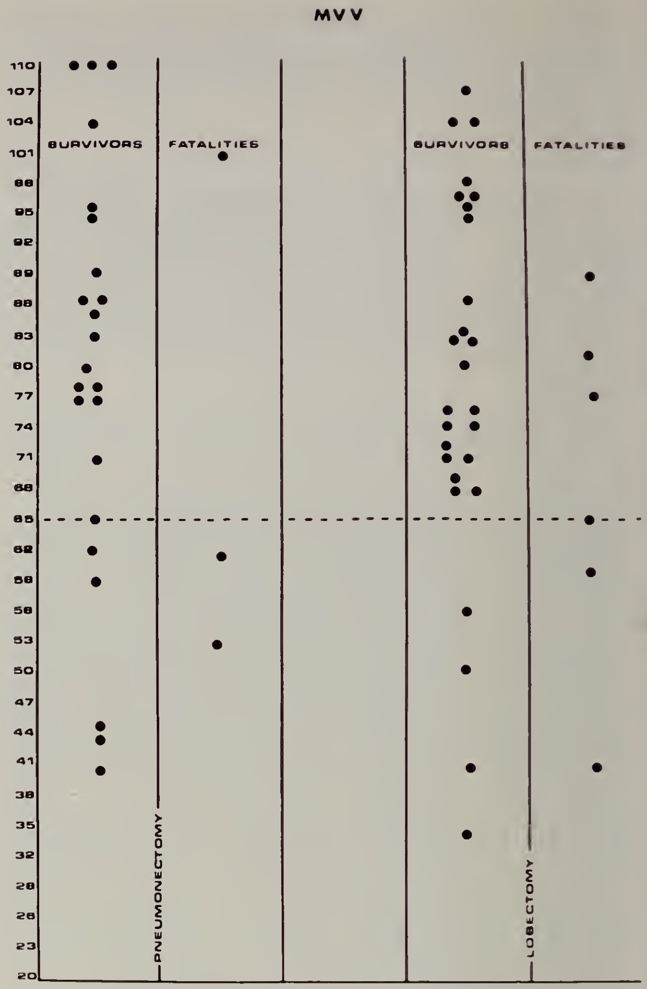

Fig. 3 The maximum voluntary ventilation (MVV) expressed as percentage of the predicted value and its relationship to survival.

tests, of course, are weighted by the patient's ability to cooperate both mentally and physically and by his age. The percentage of the predicted forced expiratory volume in the first second (FEV%P) in 98 patients are evaluated in Fig. 2. Eight patients undergoing major pulmonary surgery died having a FEV%P of less than 65%, producing an overall mortality of 20.0% of the 40 cases with such values. For the 14 evaluated, there was a pneumonectomy mortality rate of 21.4%. Those pneumonectomy patients having a FEV%P over 65% had a zero mortality rate.

Twenty-one patients were not recommended for major pulmonary resection and 17 patients (81%) had values less than 65%.

The maximum voluntary ventilation (MV̄V), formerly the maximum breathing capacity (MBC) expressed as percentage of the predicted value,[7, 8] was determined in 99 patients (Fig. 3). Five patients undergoing major pulmonary surgery and having a MVV of less than 65% suffered a fatal outcome, an overall mortality of 33.3%. However, only four of the 44 patients having a MVV greater than 65% suffered a fatal outcome, a mortality of only 9%. Of the 26 pneumonectomies performed, eight patients had a MVV less than 65% with two deaths occurring, a mortality of 25%. Eighteen patients had a value greater than 65% and only a single death occurred, a mortality of 5.5%.

Thirty-three lobectomies were carried out with seven patients having a MVV below 65% and three deaths occurring, a mortality of 42.9%. Twenty-six cases had a MVV above 65% with three deaths occurring, a mortality of 11.5%.

Of those cases not recommended for resection, 11 cases (52.4%) had less than 65%MVV.

Cardiac Catheterization

Of all the various parameters assessed during right heart and pulmonary artery catheterization, only the pulmonary pressure studies revealed information of prognostic significance. It had been our impression that those patients demonstrating marked elevation of the systolic pressure in the main pulmonary artery might be considered a less than satisfactory risk for major pulmonary resection. We have been rather amazed that this assumption was frequently violated by patients having very high pulmonary artery pressures both at rest and with exercise and, yet, surviving without difficulty. Retrospectively, the systolic pulmonary pressure elevations are more closely correlated with a multitude of simultaneously varying parameters such as the cardiac rhythm, the degree of arteriovenous shunting in the affected lung, the rate and depth of respiration and the degree of hypoxia. However, the response of the mean pulmonary artery pressure from the initial resting state in room air to that level achieved after five minutes of exercise on a bicycle ergometer in the prone position in room air was somewhat more instructive. The main pulmonary artery pressures were determined in 96 patients. In those 12 patients failing to survive major pulmonary resection, eight (66.7%) were found to have an increase in their mean pulmonary artery pressure with exercise to levels of 12 mm Hg or more. Of the 44 patients in the surviving group, only 16 or 36.6% had more than 12 mm Hg increase. Twenty-one patients underwent pneumonectomy with a mean pulmonary artery change of less than 12 mm Hg and there were 4 deaths for a 19% mortality; 11 pneumonectomy patients had a change greater than 12 mm Hg with three deaths occurring, a 27.3% mortality. More significantly, 13 patients underwent lobectomy with five fatalities for a 38.5% mortality when the mean pulmonary artery change was greater than 12 mm. However, there was a zero mortality among the 11 lobectomy patients with the lower values (Fig. 4).

Blood Gases

Even though Gorovienko places great emphasis on the "veno-venous oxygen difference" in the pulmonary artery at rest and with exercise, we could not make a similar correlation in this study. The pulmonary artery oxygen saturation, although a fairly accurate reflection of the mixed venous oxygen saturation, had no prognostic significance since all cases were randomly distributed over a narrow range, with all fatalities occurring near the mean. The pulmonary oxygen saturation response correlated even more poorly with many survivors showing the greatest changes. These changes again were better correlated with the presence or absence of arteriovenous shunting.

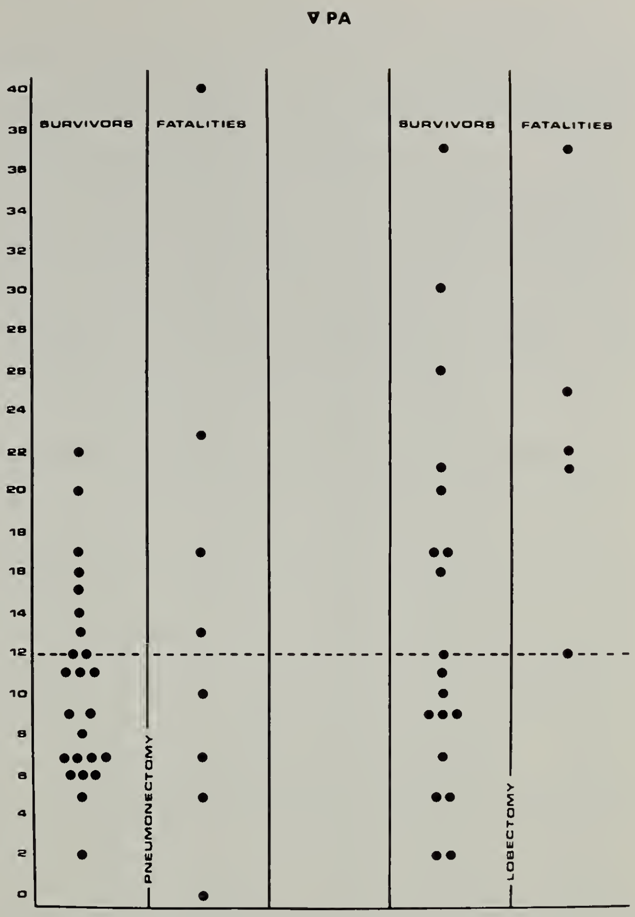

Fig. 4 The change in pulmonary artery pressure from resting to exercised state with relationship to survival.

The oxygen saturation level in the aortic arch or brachial artery at rest, of course, gives the accurate reflection of the combined defect in ventilation and diffusion secondary to the combined pathology present, but it also proved to have postoperative prognostic importance.

There were seven patients (63.6%) of the 11 fatal cases who had an arterial oxygen saturation of 92% or below. Nine pneumonectomy patients had arterial saturation of 92% or below, and three fatalities occurred for a 33% mortality. This compares with a 15.0% mortality (three fatalities) in the 20 pneumonectomy patients having arterial oxygen saturation greater than 92%. Eleven lobectomy patients had values below this critical level with four deaths, a 36.3% mortality, compared to the 10% mortality (one death) for the ten lobectomy patients above this level (Fig. 5).

Oxygen saturations post-exercise were elevated appropriately with the attendant increase in

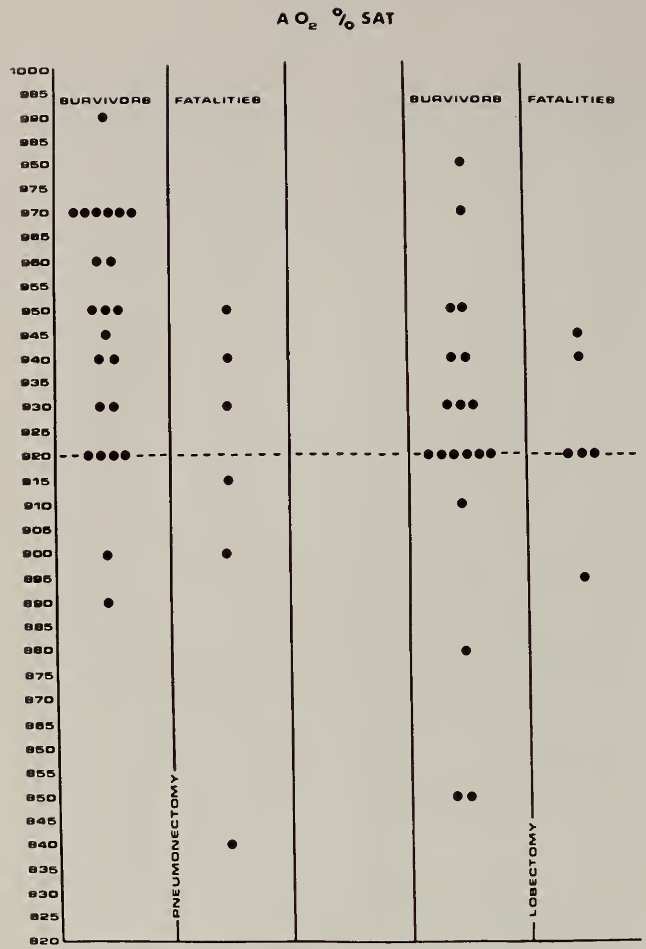

Fig. 5 Arterial oxygen saturation (10^{-3}) at rest with relationship to survival.

hyperventilation associated with such activities, but the magnitude of change provided little correlation information. The evaluation of the pCO_2 and pH in various states of activity correlated not at all with survival and were significant only in those patients not recommended for major pulmonary resection.

Angiography

In more recent years, we have begun routinely performing main pulmonary angiograms as part of our evaluation. Due to our low level of experience with interpretation of these studies, we have only rarely denied surgery upon the basis of positive findings. Retrospectively, however, we are aware that many instances of positive findings for the criteria of inoperability defined by Dotter[9] and others[10, 11] have been substantiated at the time of thoracotomy.

Electrocardiogram

All 71 patients undergoing major pulmonary resection had preoperative electrocardiograms (EKGs). Among the seven pneumonectomy deaths, four (56.1%) had left axis deviation (LAD) greater than a minus 30°. Only one (3.3%) case of LAD occurred in the 30 survivors of pneumonectomy. Normal EKGs occurred in 14 of 30 pneumonectomy survivors and in two of seven pneumonectomy fatalities. There were six patients undergoing pneumonectomy with previous myocardial infarctions and two deaths occurred, both also having LAD.

Normal EKGs were present in 19 of 34 lobectomy patients with four deaths occurring in this group. Left axis deviation occurred once in these 34 cases as a single abnormality in a survivor. Left axis deviation was not noted in seven fatalities. Ultimately, in those patients having this abnormality, there was a 22% mortality rate.

Discussion

Lest anyone be misled into applying these statistics to the overall picture of the cancerous lung lesion, we must clarify that there has been a great deal of selectivity in this study as previously implied. Our total experience also encompasses the elderly smoker, who is usually treated for years for chronic obstructive lung disease, and the concomitant progressive cor pulmonale who develops a coin lesion. This patient is allowed the comfort of his remaining days at home without the financial burden of an unproductive hospitalization. Furthermore, we have consulted on the hospitalized patient with the early, barely detectable lesion who, unfortunately, has a major contraindication to any surgery, namely serious cardiac disease, advanced liver disease and/or kidney failure. Obviously, the person whose pulmonary dysfunction is of a degree which prohibits his coming to the laboratory is the patient who is not a surgical candidate. Thus, in this study, we are concerned only with the man who has a suspicious lesion and who is a probable candidate for pulmonary resection.

Furthermore, we have used as a criteria of nonresectability commonly accepted elements which affect the laboratory evaluation little, but which have been discovered to have a much greater morbid prognostic significance than any laboratory data, as follows:

1. Recurrent laryngeal nerve paralysis, phrenic nerve paralysis or Horner's syndrome.
2. Positive scalene lymph node biopsy.
3. Tracheal or carinal involvement on bronchoscopy.
4. Roentgenologic involvement of opposite lung, esophagus or the chest wall.

5. Superior vena caval obstruction.
6. Positive pleural fluid malignancy.
7. The autonomous distant metastasis.

Actually less than 8% of our evaluated cases eventually had such criteria.

Of those cases undergoing thoracotomy and found to be inoperable by position, we imply that a major invasion of the mediastinum and its structures has occurred, usually violating either the right or the left atrium or the main pulmonary artery. Occasionally, resection has been possible, but Johnson[12] and DeLarue[13] have shown poor survival statistics when the vascular compartment has been invaded. Furthermore, thoracotomy for nonresectable disease has a high mortality and significant morbidity. Most of the literature to date, as noted by Karlinger,[14] has established our presently-used laboratory determined functional criteria for operability in major pulmonary resection and it is not our intent to assail these works. However, these works have followed the evolution of thoracic surgery and were usually involved as is Gaensler's classic work[15] with pulmonary tuberculosis. Undoubtedly, many of these patients had extensive involvement of the lung parenchyma with the fibrosis and increased resiliency produced by this infectious process, not to mention the occurrence of varying degrees of bilateral disease. Others have chosen to use the criteria of the presence of marked pulmonary disability; however, the error is obvious in that little can improve antecedent border line incapacitation.

The average age of patients undergoing pulmonary resection is higher than previously noted, but, again, it is only a reflection of the evolution of the art of thoracic surgery when advanced age in itself is no longer a contraindication to surgery. This factor is still quite important when one considers that the age range for the average tuberculosis patient is three decades less than than of the average age of the pulmonary patient. Furthermore, we know that the "elderly patient has a higher degree of emphysema and his cardiac output declines with advancing age."[16] Since most of these patients are smokers, one can anticipate a higher incidence of obstructive airway disease. Thus, even minute changes in his physiology become significant.

The importance of performing preoperative cardiopulmonary function tests have repeatedly been emphasized by Adams,[17] Gifford,[18] Miyamoto[19] and Stein.[20] Some have felt that these proceedings are too complex and difficult to perform. With the past decade's advance in equipment design and the ready availability of trained personnel, however, we find that these tests can be easily done at a reasonable cost and scheduled in close sequence, thus shortening the patient's ultimate hospitalization.

J. J. Rams has previously noted that a marked decrease in vital capacity and maximum breathing capacity are the most consistent abnormalities in the preoperative pulmonary function studies.[21] We have found that the vital capacity is frequently reduced, but did not correlate well with our study, probably because of the general uniform advanced age of our patients.

As opposed to the static volume tests, the timed volume indexes provide information on the rate of air delivery and, thus, on airway obstruction. Assuming that these patients are appropriately motivated, then only their ability to perform these tests is an area for inherent testing error. This can be minimized by the well-trained, conscientious technician who will be aggressive in his motivation of the patient, instructing him well so that the test can be performed without fatiguing practice runs.

The forced expiratory volume in one second (FEV_1) then can be interpreted in the following two ways:

The first method is as a percentage of the measured forced vital capacity (FVC%). This, then, measures the degree of airway obstruction in the delivery system. The standard values presented here have been defined with normal being no less than 83% and should always be greater than 70% at any age.[22, 23] This method is faulty, however, in that both the FVC and FEV% may be significantly altered and the ratio would remain unchanged. This also is evident when using this method to assess bronchodilatory effect of medications since both parameters change equally and the ratio remains unchanged when we hope for an increase of 20% or more.

The second method, which we found to have prognostic value, is the FEV_1 as a percentage of the predicted FVC. This provides a reflection of the patient's ventilatory function. This may then be reduced by a decrease of the patient's FVC or by airway obstruction or, as most often occurs, a combination of both. Snider[24] has given us a good scale for grading pulmonary function impairment (FEV_1%P greater than 80%—no impairment; less than 35%—very severe). This is useful if one does not plan on a major pulmonary resection. But, the existence of even mild impairment in the present study needs to be considered the lower limits for resectability.

The maximum voluntary ventilation (MVV—

formerly MBC) is the volume of air which a subject can breathe with voluntary maximal ventilatory effort for a given time. This has long been discussed and held by many to be the best index of one's ventilatory capacity. However, today its greatest value lies in the fact that it has been documented in many diseases and for numerous surgical conditions. Mittman felt this to be his most reliable test with the highest death rate in the 14 patients (ten deaths) who had an MBC of less than 50%.[25] Unfortunately, he made no differentiation according to the type of operation. Gaensler reported an increased number of deaths from pulmonary insufficiency in those having an MBC below 60% of the predicted capacity, and in ten patients, six deaths, from pulmonary insufficiency with MBC's below the 40% predicted rate. However, these are advanced tuberculosis patients of a younger age. Thus, the 65% MVV in the present study is a second guideline of ventilatory minimums for resectability.

W. E. Adams has previously suggested criteria for intraoperative pulmonary artery pressures with which to determine an "inordinately 'High Risk.'" This approach has contributed much to our medical and surgical management of these patients, but this method has two great disadvantages. First, this gives the patient little chance to make an informed decision concerning his ultimate status. Second, with the anesthetized patient's chest open, we have a markedly nonphysiological state of cardiopulmonary dynamics which does not reflect the patient's ability to adapt to stressful exercise. Furthermore, Adam's group also has stressed that the patient's peripheral vascular status must be stable at the time of the pressure measurement; this, then, is another reflection of the nonphysiologic patient status. Lim *et al*[26] have very nicely demonstrated that secondary to the respiratory mechanics, there occurs a marked oscillation of the intrathoracic pressure at rest and, in particular, during physical exertion. It also was demonstrated that these oscillations affected all segments of the pulmonary circuit in a predictable fashion. This group also has demonstrated, as we have discovered in our study, that "irrespective of the degree of pulmonary hypertension, the 'effective' pulmonary arterial pressure falls during expiration and rises during inspiration." Thus, we have been able to overcome this oscillatory pattern, the magnitude of which varies directly with the degree of impairment of respiratory mechanics by the difference of the electronically derived mean pulmonary artery pressures in the resting and exercised states.

The oxygen saturation level in the left ventricle and aorta has been demonstrated to be normally less than predicted by formulae for ventilation, perfusion and diffusion. This has recently been explained by the illustrative work of Cudkowicz[27] in which he demonstrates that a major portion of the bronchial-lung-parenchymal circulation returns to the pulmonary vein, thus producing some venous admixing. He has further demonstrated an increase in number and an increase in diameter of the bronchial arterioles to the region of tumors and with "pooling" at the capillary levels. This all lends to decreased bronchial arteriolar flow and increased oxygen saturation.

Thus, we feel that the aortic oxygen saturation reflects all these physiologic changes. If they are significantly altered, it is apparent that we cannot expect regression of these ventilatory and perfusive systems toward normalcy.

We also have followed closely the oxygen saturation with the expected greater magnitude increased with exercise. However, the ability to perform this test is currently available only to a few and our own series is not yet large.

Mittman, studying 199 patients undergoing thoracotomy, discovered a 26% mortality rate in patients with abnormal EKGs. The present study's population was thus in agreement. The high fatality rate among the pneumonectomy patients having LAD was initially surprising, but Corne *et al*[28] has demonstrated that LAD was associated frequently with moderate or severe myocardial fibrosis or infarction, regardless of whether left ventricular hypertrophy was present. Contrary to frequently held opinion, Gorman *et al*[29] has shown that aging alone, even into the seventh, eighth and ninth decades, is not a significant factor in producing this degree of LAD. Thus, we feel that LAD should strongly suggest a weakened myocardium unable to cope with the stress of single lung ventilation.

Dotter introduced angiocardiography in 1950 for both diagnostic and prognostic purposes. Subsequently, others[30-32] have refined the procedures and prognostic significance of various findings. Both Sanders[33] and Maruyama[34] have defined similar criteria of nonresectability with venous angiocardiography from the innominate vein or superior vena cava. Briefly, they are as follows:

1. Any persistent filling defect or narrowing of the superior vena cava, right atrium or left atrium.

2. Mediastinal lymph node involvement.
3. A lesion proximal to the right pulmonary artery bifurcation or within 1.5 cm of the left pulmonary artery.
4. A lesion within 1.2 cm of the four major pulmonary veins.
5. A tumor plaque over the left hilus.

The significance in performing this procedure has been reiterated by Delarue in that thoracotomy for nonresectable disease has an appreciable mortality (9%-12%) and a significant morbidity in most series in which average incidence of nonresectability ranges between 40% to 50% of explorations. He also notes that nonresectability in the face of a negative angiogram remains relatively constant (16%-19%).

In general, we have elected to perform the angiogram while the catheter is in the plane of the pulmonary artery for pulmonary studies, so that we could avoid venous dilution and deliver a relatively larger bolus of opaque material in a short period of time. This provides better resolution of the pulmonary vasculature and allows the application of most of the above criteria. Even though the superior vena cava and the right atrium are not clearly defined, the right hilum is well demonstrated in both the arterial and venous phases. This, along with the view of the aorta, usually gives a good impression of mediastinal invasion. Using this method, we have been further impressed with the frequent marked delay of venous phase on the side of the lesion. This is presently being considered from various cardiopulmonary points of view and its significance is yet apparent.

SUMMARY

A retrospective review of 123 patients evaluated for major pulmonary resection for pulmonary carcinoma has been conducted. Prognostic values have been suggested for FEV%P, MVV, mean pulmonary artery pressure difference from the resting to the exercised state, arterial oxygen saturation and the electrocardiogram with a hope of narrowing the indecisive areas concerning these patients. A brief experience with pulmonary angiograms is discussed.

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Continuing Education Coming Events

March 6-8	**Symposium: Pediatrics** Postgraduate Medical Education K.U. School of Medicine, Kansas City, Kan. 66103
March 8-9	**Conference on Diabetes Mellitus** Continuing Education, M.U. School of Medicine Columbia 65201
March 15-16	**Comprehensive View of Cardiovascular Diseases** Danciger Institute for Health Sciences Menorah Medical Center, Kansas City 64110
March 20-22	**Symposium: Surgery** Postgraduate Medical Education K.U. School of Medicine, Kansas City, Kan. 66103
April 5-6	**Urology Seminar** M.U.-Columbia Medical Center and Extension Division and Kansas City General Hospital Plaza Inn, 45th & Main, Kansas City
April 10-12	**Symposium: Ophthalmology** Postgraduate Medical Education K.U. School of Medicine, Kansas City, Kan. 66103
April 12-14	**Oncology and Hematology** Danciger Institute for the Health Sciences Menorah Medical Center, Kansas City 64110
April 13-14	**Workshop: Clinical Approach to Allergic Disorders** Miller Hall, St. Louis University Hospitals, St. Louis
April 17-19	**Symposium: Anesthesiology** Postgraduate Medical Education K.U. School of Medicine, Kansas City, Kan. 66103
April 19-20	**Cancer Chemotherapy Conference** Continuing Education, M.U. School of Medicine Columbia 65201
April 21	**Symposium: Infectious Diseases** Postgraduate Medical Education K.U. School of Medicine, Kansas City, Kan. 66103

24TH ANNUAL MIDWEST CANCER CONFERENCE

The Kansas Division, Inc., American Cancer Society will sponsor the 24th Annual Midwest Cancer Conference to be held at the Broadview Hotel in Wichita, Kan. on March 17-18.

"Cancer Progress in the 70s" is the theme of the conference for physicians. A wide variety of topics pertinent to recent developments in the management of the patient with cancer will be presented by nationally- and internationally-known specialists.

Special features will include a luncheon on March 17 featuring a panel of the staff from the Kansas University Medical School. William Roy, M.D., Congressman, will speak on the financing of health care.

Credit has been allowed for the conference by the American Academy of Family Practice. Missouri physicians are invited to attend the meeting. There will be no registration fee.

For additional information, contact Paul A. Baumann, M.D., American Cancer Society, Kansas Division, Inc., 824 Tyler, Topeka, Kan. 66612.

President's Message

MEDICAL MANPOWER

Perhaps it is redundant to speak to the issue of Medical Manpower at this late date. Certainly on record are reams of rhetoric emanating from in-depth studies by committees of the AMA, Congress and special interest institutions. However, my concern stems from multiple aspects of the problem, not the least of which reflects on the track record of Congress, the American people and the press as they have reacted to manpower need in other segments of our socioeconomic structure.

Gerald L. Miller, M.D.

To wit, in the early 60s with the magnetism of the "Space Age" headlining everyone's front page, bright or brilliant young people in significant numbers spun in to the engineering and allied professions. Less than a decade later, many of these bright, well-trained, young engineers are doing irrelevant, menial tasks or are unemployed. In the mid 60s, the educational thirst for teaching talent seemed to be not easily quenchable. Before we were well launched into the 70s, however, there was an overabundance of teachers of given training in many areas. America's reactivity to manpower needs in war and peace is historically unparalleled. Too many bars on the strip, too many filling stations at the intersection and overproduction in all areas is an all too common reality in the United States.

These physical investments to which I allude are not necessarily germane to the medical manpower problem. In my opinion, however, they are. Furthermore, the medical manpower problem is much, much more complex and more senstive to a multitude of factors. The expense and time involved in medical and paramedical educational preparation is great and demands even more careful scrutiny in an effort to maintain a delicate balance of manpower need and availability.

Health as a right, expanding population, magnificent advance in medical technology, increased available medical services and the significant, increasing economic impact of the federal government on health have unquestionably placed an awesome burden on existing medical manpower and facilities.

However, medical schools expanding in numbers and graduates in the past ten years, together with the projection of the next eight years, will have caught up and exceeded reasonable, increasing population medical demands. This fact also takes no cognizance of the significant pool of foreign graduate physicians now seeking and getting citizenship and licensure in the United States. In my opinion, unless a realistic, sensitive monitor of medical manpower need is established, overproduction possibilities need to be seriously weighed. Overproducing physicians still does not answer distribution need, and that is our foremost problem now. The inner city and rural areas together with selected other geographic areas simply need an appropriate, assured distribution of physicians and facilities. Surely, an appropriate mechanism can be democratically evolved for health care delivery to the deprived areas without sacrificing quality of care for an overabundance of sub-par service.

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ST. LOUIS SURGICAL SOCIETY

Presents the

FORTY-EIGHTH HODGEN LECTURE

Guest Speaker

THOMAS E. STARZL, M.D.

Professor of Surgery
University of Colorado Medical Center
Denver, Colorado

"A DECADE OF TRANSPLANTATION"

TUESDAY, MARCH 7, 1972—6:00 P.M.

St. Louis Medical Society Auditorium
3839 Lindell Boulevard

All Members of the Profession Invited

Woman's Auxiliary

A SPECIAL INVITATION

The Woman's Auxiliary again takes this opportunity to urge all members of the MSMA to extend our special invitation to your wives to join us for the interesting meetings and social events at our 47th Annual Meeting which will be held in conjunction with the MSMA Annual Session on April 6-9 in Kansas City.

If your wife is not an Auxiliary member, this is the perfect time for her to get acquainted with our officers and members from other communities and to observe our various activities.

Mrs. Frank J. Valach
President

An exciting meeting has been planned and we're confident your wife will enjoy it thoroughly. Please be sure that she sees this issue of Missouri Medicine so that she can learn about the highlights of our program.

- Our convention will open at 9 AM on Friday, April 7 with the general session. We will present an outstanding "surprise" speaker.
- *Mrs. Robert F. Beckley* of Lock Haven, Pa., President-Elect of the Woman's Auxiliary to the AMA, will be the featured speaker at our luncheon on Friday. Also, we are proud to announce that special guests will include *MSMA President Gerald L. Miller,* who will extend greetings, and the members of the *MSMA Advisory Council to the Auxiliary.*
- We cordially invite your wife to attend a reception on Friday evening honoring Mrs. Keith D. Jones, our President-Elect, and the Auxiliary Board of Directors. She will make many new friends here.
- *Mrs. Raymond Jones* of Louisville, Ky., *President of the Southern Medical Association Auxiliary,* will speak to us at the Installation Luncheon on Saturday, and we will be honored to have Mrs. Beckley as our installing officer.

Of course, we hope everyone will enjoy a highlight of both conventions—the social hour at 6:30 PM on Saturday preceding the banquet honoring the MSMA Past-Presidents and the dance which will follow. These events have been planned to give everyone an opportunity to meet and talk to the Presidents, Presidents-Elect and other officers of both the MSMA and the Auxiliary who will be there to greet you. Please don't disappoint us, because we all look forward to meeting everyone who attends the Annual Session.

Please escort your wife to our Auxiliary Registration Desk Thursday afternoon or Friday or suggest that she stop by, if you are busy. We promise you that she will receive a royal welcome!

EDITORIALS

A DESERVED HONOR*

There has been much written this week about the honor presented to Dr. Emmett F. Hoctor, veteran psychiatrist and former superintendent of the Farmington State Hospital. Still, there are just a few personal words that should be added.

The story of Doctor Hoctor's endeavors at the hospital are truly inspiring, but this is only a minor part of the legend. The heart of the story is the heart of the doctor—so full of love and concern for fellow man that it cannot be contained. It radiates from him no matter where he be, no matter what the circumstances.

The smile on Doctor Hoctor's face is never one of patronization. The concern he shows is true. The reassurance he offers has been as much a part of the "healing process" as any medicine that could be prescribed.

The doctor is human, believe it or not. He can become perturbed and quite frank when the situation warrants it. On the other hand, he has shown faith in persons for whom all others had lost hope—the type of faith that has taken men and women from the depths of mental illness to the heights of success.

It has been men like Doctor Hoctor who have done so much to remove the social stigma associated with mental illness and made it understood that it is a sickness just as most physical illnesses and not something of shame.

Tributes, written and oral, may be made to this fine man, but the most rewarding of all will never be heard for they are the thoughts and praise that come from the hearts of those with whom he has worked and treated. Fellow hospital workers can remember the hard times when only the spirit of Doctor Hoctor could give them the incentive to keep going. Patients who have given up have found new life and hope through his counselling. Both have praise for him, but it is the type of praise that could never effectively be put in words.

We might ask that God bless him, but that He has already done. We only hope that without being able to say it—for the words are not available—that he will understand our appreciation and also our pride in having him as part of our community.

The Flat River Journal
Dec. 29, 1971

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* Dr. Emmett F. Hoctor of Farmington was awarded *The St. Louis-Globe Democrat* Humanities Award on Dec. 30, 1971. The story appears on page 173.

THE TRIP ISN'T OVER

On January 18, ground was broken for the UMKC School of Medicine. Although JCMS and MSMA were not represented among the dignitaries on the platform, the physicians in the community were recognized by Mayor Wheeler and Dean Noback in their remarks. The school has resulted from a sizeable team effort, including support from physicians all over the state.

What will this new effort in medical education mean to the practitioner? Simply stated, it will mean whatever the practicing physician wants it to mean. The University has repeatedly said that the thrust will be toward turning out clinicians. In accomplishing this goal, the entire health delivery system of this area will be used. Many of us have been asked to contribute in many different ways.

Students are now spread out into several area hospitals. The years I and II provisional medical students are recent high school graduates who are learning from their Docents in different hospitals. The medical students of year III and above in this six-year program are now taking electives in office practice, radiology and psychiatry. These electives will increase in number and diffuse in area so that every available health facility (including private physicians) which has a meaningful contribution to make to undergraduate medical education will be utilized.

What benefits will accrue to the members of the medical community? Some of these have already begun. The University Hour is held every Friday noon in the UMKC Dental School auditorium. On January 21, Grey Dimond gave his pictorial review of medical care in mainland China. Jerry Miller, John Barnard, Walter H. Jacobs and other practitioners have presented at these sessions. All health professionals are welcomed to attend this meeting.

As time goes along, the continuing education programs will increase. Visiting professors (Docents) in all the specialties will not only give their formal presentations but will be avaiable to different hospital medical staffs for rounds and conferences.

A major bridge was crossed with the groundbreaking ceremony. What was once a country road now shows signs of being a state highway. In front of us are meetings of national importance. If we are to construct the superhighway leading to better patient care through better medical education, we will all need to continue and add to those efforts which have gotten us this far. We hope the hills ahead are gently graded.

Andrew McCanse, M.D., *Editor*
Greater Kansas City Medical Bulletin

County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

Buchanan County Medical Society

The first meeting of the Buchanan County Medical Society in the New Year was held on January 5 at Ramada Inn in St. Joseph. Dr. Lawrence H. Pifer, newly-installed President, presided. Forty-six physicians attended the dinner and program.

Dr. Martin J. Fischer, Program Chairman, introduced the speaker, Dr. Boyd Terry, professor of surgery at the University of Missouri-Columbia School of Medicine. Doctor Terry presented a slide-illustrated lecture on "Clinical Experience with Parenteral Hyperalimentation."

Arrangements for the meeting and program were made by Doctor Fischer and Drs. Gerald E. Fox and Edward M. Beheler, members of the Program Committee.

Mr. Edward M. Hirsch, Executive Secretary of the Society, was honored at the meeting for his 25 years of service to the organization. Dr. Robert W. Kieber, Treasurer, presented to Mr. Hirsch a gift of appreciation from the members of the Society and the Woman's Auxiliary.

William B. O'Connor, M.D., *Secretary*

Grand River Medical Society

Thirty-two members and guests met at the Strand Hotel in Chillicothe for the Grand River Medical Society meeting on January 13. A social hour preceded the dinner, the ladies were invited to attend the scientific program which followed.

The scientific program was presented by Keith H. Averill, M.D. and Hector W. Benoit, Jr., M.D. of Kansas City who discussed in detail "The Diagnostic and Surgical Approach to Coronary Artery Disease." Members present considered it an outstanding presentation.

The Society was pleased to have as guests Mr. Royal O. Cooper, Field Secretary of the Missouri State Medical Association, and Paul Young, M.D., medical director of the continuing education program for health professionals at the University of Missouri School of Medicine-Columbia.

The Auxiliary members present held a bake sale auction for the AMERF Fund.

There was no business meeting and the meeting adjourned.

Frank R. Daley, M.D., *Secretary*

SECOND DISTRICT

COUNCILOR
LYSLE M. BACH, M.D., HANNIBAL

Chariton-Macon-Monroe-Randolph County Medical Society

The regular meeting of the CMMR County Medical Society was held on January 13 at the Woodland Hospital Library in Moberly. Dr. F. L. Harms, the new President, presided.

The program consisted of unusual and interesting case reports presented by members of the Society.

Dr. C. C. Cohrs played a portion of a recent tape on which Dr. John L. Ochsner of the Ochsner Clinic in New Orleans gave indications for surgery in coronary artery disease. Dr. Thomas S. Fleming discussed the tape.

Dr. R. V. Tompson showed x-rays and discussed findings and treatments of five patients. Doctor Harms discussed the case of a boy who had an acute appendicitis.

Dr. J. Will Fleming presented the medical history of a recent patient. He also reported continuing favorable results with 5 FU, as did Dr. F. A. Barnett.

Dr. Thomas S. Fleming gave several helpful pointers which have served him well during his many years of practice.

Dr. Leopold Lachance of Centralia was a guest at the meeting. Members present were Drs. F. L. Harms, Chariton County; F. A. Barnett, Monroe County; Josephine D. Baker, T. S. Fleming, J. Will Fleming, W. D. Chute, C. C. Cohrs, L. E. Huber, R. V. Tompson and R. H. Young, Randolph County.

W. D. Chute, M.D., *Secretary*

THIRD DISTRICT

COUNCILOR
MAX S. FRANKLIN, M.D., ST. LOUIS

St. Louis Medical Society

Dr. F. Eugene Pennington was installed as President of the St. Louis Medical Society in installation ceremonies during the annual meeting at the Society building on Jan. 11, 1972. He succeeds Dr. Lawrence W. O'Neal.

Other new officers installed at the meeting are Dr. Robert H. Felix, Vice-President; Dr. Donald R. Judd, President-Elect and Drs. James W. Haynes, Eugene N. Mitchell, Harry A. Reich and James M. Stokes, Councilors.

Gold Medal awards of merit for distinguished achievement by Society members were presented to Drs. Axel N. Arneson and Wendell G. Scott, radiologists who have been active in fighting cancer. Doctor Arneson is board certified in obstetrics and gynecology as well as radiology.

Honor memberships to those who have given distinguished service to medicine or the community were awarded to Drs. Lauren V. Ackerman, Walter Baumgarten, Jr., Armand D. Fries, James M. Macnish, Louis H. Kohler, Joseph C. Peden, Sr. and Daniel L. Sexton.

Paul L. Friedman, M.D., *Secretary*

FOURTH DISTRICT

COUNCILOR
LOUIS P. HETLAGE, M.D., TROY

St. Louis County Medical Society

The St. Louis County Medical Society installed Dr. Jack R. Eidelman as President for the year 1972 in ceremonies at Le Chateau in Clayton on January 21. Doctor Eidelman is a psychiatrist.

Other officers installed at the meeting were Drs. Allen P. Klippel, President-Elect; Rudolph E. Catanzaro, Vice-President; and Vernon H. Balster, Secretary. Council members installed were Drs. Robert B. Deitchman, Rudy Ruhling, Edwin J. Cunningham, Falls B. Hershey and William L. Tomlinson.

Dr. James R. Nakada was honored at the meeting when he was given the Award for Merit by the Medical Society. Doctor Nakada, a Past-President, has been active in the practice of medicine for 47 years. During that time, he has received many awards and citations for his contributions to medical progress.

Doctor Nakada, who was to receive a check for $100, which always accompanies the Gold Key given to Award for Merit winners, asked that his check be divided and one half be made payable to the Salvation Army and the other half to Boys Town.

It was reported that more than 24,000 referrals were made by telephone to callers seeking medical assistance last year.

Vernon H. Balster, M.D., *Secretary*

Socio-Economic Congress to Be Held in Fort Lauderdale

"Health Services in the '70s" will be the theme of the Sixth National Congress on the Socio-Economics of Health Care in Fort Lauderdale, Fla. on April 6-8. Sponsored by the Council on Medical Service of the American Medical Association, the three-day Congress is expected to attract 600 physicians and other authorities in the field of health care services. Daily sessions are planned from 8:30 a.m. until 1 p.m.

Among those scheduled to address the Congress are Ira C. Layton, M.D., chairman of the board of the National Association of Blue Shield Plans; Merlin K. DuVal, Jr., M.D., assistant secretary of HEW for Health and Scientific Affairs; Ernest W. Saward, M.D., president of the Group Health Association of America; Russell B. Roth, M.D., speaker of AMA's House of Delegates; Mrs. Helen Nelson, vice-president of the Consumers' Federation of America.

The Congress theme will be developed in a series of three in-depth explorations which include the mix of health care financing, the structure of health care delivery, and the challenge to improved services.

Financing of health care will be the subject of the opening session on Thursday, April 6. Topics to be covered are paying for health care with government dollars, changing role of voluntary health insurance, and the physician and payment mechanisms.

Friday's program will cover the structure of the delivery system from the vantage of the consumer, government, poor, state medical society, aging, a community, and the press.

The concluding session on Saturday will be devoted to discussion of the challenge to improved services. "Bringing It All Together" will be the subject of the concluding address by Max H. Parrott, M.D., chairman of the AMA Board of Trustees.

New Members

Apolinario A. Ancheta, M.D., 1403 N. Jefferson, Springfield, has become a member of Greene County Medical Society. Dr. Ancheta is a native of San Fernando, Philippines, received his preliminary education at the University of Santo Tomas and his M.D. degree at the University of Santo Tomas in 1955. He is in general practice.

Edward H. Andres, M.D., 906 Edmond, St. Joseph, has become a member of Buchanan County Medical Society. Dr. Andres is a native of Tucson, Ariz., received his preliminary education at the University of Arizona and his M.D. degree at Baylor University in 1964. He specializes in general and vascular surgery.

Robert E. Battmer, M.D., 114 N. Water, Liberty, has become a member of Clay County Medical Society. Dr. Battmer is a native of Kansas City, received his preliminary education at the Central Missouri State College and his M.D. degree at the University of Missouri in 1967. He is in general practice.

Joy V. Bliss, M.D., 116 South St., Excelsior Springs, has become a member of Clay County Medical Society. Dr. Bliss is a native of Grand Forks, N. D., received his preliminary education at Jamestown College and his M.D. degree at the University of Nebraska in 1968. He is in general practice.

Francis M. Corry, M.D., 1211 S. Glenstone, Springfield, has become a member of Greene County Medical Society. Dr. Corry is a native of Lebanon, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1965. He specializes in general surgery.

George A. Craft, M.D., 203 Mid-Missouri Mental Health Center, Columbia, has become a member of Boone County Medical Society. Dr. Craft is a native of Monett, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1971. He specializes in psychiatry.

William J. Crowley, Jr., M.D., 201 W. Broadway, Columbia, has become a member of Boone County Medical Society. Dr. Crowley is a native of Evergreen Park, Ill., received his preliminary education at Washington University and his M.D. degree at Washington University in 1961. He specializes in neurology.

Sergio G. Cruz, Jr., M.D., 801 Lincoln, Monett, has become a member of Ozarks Medical Society. Dr. Cruz is a native of Manila, Philippines, received his preliminary education at the San Juan de Letran College and his M.D. degree at the University of Santo Tomas in 1963. He specializes in internal medicine.

George W. Dent, Jr., M.D., 301 W. Liberty, Farmington, has become a member of the Mineral Area County Medical Society. Dr. Dent is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1962. He specializes in obstetrics and gynecology.

Bartley R. Frueh, M.D., University of Missouri Medical Center, Columbia, has become a member of Boone County Medical Society. Dr. Frueh is a native of Cleveland, Ohio, received his preliminary education at Cornell University and his M.D. degree at the Columbia College of Physicians and Surgeons in 1964. He specializes in ophthalmology.

George E. Gammel, M.D., Boone County Hospital Laboratory, Columbia, has become a member of Boone County Medical Society. Dr. Gammel is a native of TeKamah, Neb., received his preliminary education at the Doane College and his M.D. degree at the University of Nebraska in 1964. He specializes in pathology.

John A. Gerdes, M.D., St. John's Hospital, Springfield, has become a member of Greene County Medical Society. Dr. Gerdes is a native of Fremont, Neb., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois in 1961. He specializes in clinical and anatomic pathology.

Isle Heilbrunn, M.D., 11th and Bishop, Rolla, has become a member of Mid-Missouri County Medical Society. Dr. Heilbrunn is a native of Gotha, Germany, received his preliminary education at the Gymnasium Ernestinum and his M.D. degree at the University of Hamburg in 1962. He is in general practice.

Alan R. Hopeman, M.D., Room N307A, 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Hopeman is a native of Fargo, N. D., received his preliminary education at Concordia College and his M.D. degree at the University of Minnesota in

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[1] Latiolais, C. J., and Berry, C. C.: Misuse of Prescription Medications by Outpatients, *Drug Intelligence & Clin. Pharm.* 3:270-7, 1969.

TEST	HYPOTHYROID	SYNTHROID THERAPEUTIC NORMAL
P.B.I.	Less than 4 mcg %	6-10 mcg %
T_4 By Column	Less than 3 mcg %	7-9 mcg %
T_3 (Resin)	Less than 25%	27-35%
T_3 (Red Cell)	Less than 11%	11.5-18%
Free Thyroxine	Less than 0.7 nanograms %	0.7-2.5 nanograms %
Murphy-Pattee	Less than 2.9 mcg %	4-11 mcg %

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CYTOMEL (Sodium liothyronine) Synthetic T_3	EUTHROID** (Liotrix) Synthetic T_3-T_4	THYROLAR*** (Liotrix) Synthetic T_3-T_4	Desiccated (Thyroid, USP) Cow, sheep or hog thyroid	PROLOID (thyroglobulin) Frozen hog thyroid	SYNTHROID (Sodium levothyroxine) Synthetic T_4
Unscored 5 mcg.	N.A.	N.A.	unscored ¼ gr.	¼ gr.	0.025 mg.
N.A.	½	½	unscored ½ gr.	½ gr.	0.05 mg.
25 mcg.	1	1	unscored 1 gr.	1 gr.	0.1 mg.
N.A.	N.A.	N.A.	N.A.	1½ gr.	0.15 mg.
50 mcg.	2	2	unscored 2 gr.	2 gr.	0.2 mg.
N.A.	3	3	unscored 3 gr.	3 gr.	0.3 mg.
N.A.	N.A.	N.A.	unscored 5 gr.	5 gr.	0.5 mg.
N.A.	N.A.	N.A.	N.A.	N.A.	Injectable 500 mcg.

N.A. = Not Available Commercially

*Equivalents shown are chemical, and do not take into consideration individual patient variables. Clinical effect is approximate and should be monitored when converting a patient to SYNTHROID. This is particularly important in patients previously on desiccated thyroid. In these patients, lower doses of SYNTHROID may produce the same metabolic effect.

**Euthroid (#1 tablet) contains 60 mcg. of T_4 and 15 mcg. of T_3.

***Thyrolar (#1 tablet) contains 50 mcg. of T_4 and 12.5 mcg. of T_3.

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Indications: SYNTHROID (sodium levothyroxine) is specific replacement therapy for diminished or absent thyroid function resulting from primary or secondary atrophy of the gland, congenital defect, surgery, excessive radiation, or antithyroid drugs. Indications for SYNTHROID (sodium levothyroxine) **Tablets** include myxedema, hypothyroidism without myxedema, hypothyroidism in pregnancy, pediatric and geriatric hypothyroidism, hypopituitary hypothyroidism, simple (nontoxic) goiter, and reproductive disorders associated with hypothyroidism. SYNTHROID (sodium levothyroxine) **for Injection** is indicated for intravenous use in myxedematous coma and other thyroid dysfunctions where rapid replacement of the hormone is required. The injection is also indicated for intramuscular use in cases where the oral route is suspect or contraindicated due to existing conditions or to absorption defects, and when a rapid onset of effect is not desired.

Precautions: As with other thyroid preparations, an overdosage may cause diarrhea or cramps, nervousness, tremors, tachycardia, vomiting and continued weight loss. These effects may begin after four or five days or may not become apparent for one to three weeks. Patients receiving the drug should be observed closely for signs of thyrotoxicosis. If indications of overdosage appear, discontinue medication for 2-6 days, then resume at a lower dosage level. In patients with diabetes mellitus, careful observations should be made for changes in insulin or other antidiabetic drug dosage requirements. If hypothyroidism is accompanied by adrenal insufficiency, as Addison's Disease (chronic subcortical insufficiency), Simmonds's Disease (panhypopituitarism) or Cushing's syndrome (hyperadrenalism), these dysfunctions must be corrected prior to and during SYNTHROID (sodium levothyroxine) administration. The drug should be administered with caution to patients with cardiovascular disease; development of chest pains or other aggravations of cardiovascular disease requires a reduction in dosage.

Contraindications: Thyrotoxicosis, acute myocardial infarction. **Side effects:** The effects of SYNTHROID (sodium levothyroxine) therapy are slow in being manifested. Side effects, when they do occur, are secondary to increased rates of body metabolism; sweating, heart palpitations with or without pain, leg cramps, and weight loss. Diarrhea, vomiting, and nervousness have also been observed. Myxedematous patients with heart disease have died from abrupt increases in dosage of thyroid drugs. Careful observation of the patient during the beginning of any thyroid therapy will alert the physician to any untoward effects.

In most cases with side effects, a reduction of dosage followed by a more gradual adjustment upward will result in a more accurate indication of the patient's dosage requirements without the appearance of side effects.

Dosage and Administration: The activity of a 0.1 mg. SYNTHROID (sodium levothyroxine) TABLET is equivalent to approximately one grain thyroid, U.S.P. Administer SYNTHROID tablets as a single daily dose, preferably after breakfast. In hypothyroidism without myxedema, the usual initial adult dose is 0.1 mg. daily, and may be increased by 0.1 mg. every 30 days until proper metabolic balance is attained. Clinical evaluation should be made monthly and PBI measurements about every 90 days. Final maintenance dosage will usually range from 0.2-0.4 mg. daily. In adult myxedema, starting dose should be 0.025 mg. daily. The dose may be increased to 0.05 mg. after two weeks and to 0.1 mg. at the end of a second two weeks. The daily dose may be further increased at two-month intervals by 0.1 mg. until the optimum maintenance dose is reached (0.1-1.0 mg. daily).

Supplied: Tablets: 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and color-coded, in bottles of 100, 500, and 1000. Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, N.F., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent. SYNTHROID (sodium levothyroxine) **for Injection** may be administered intravenously utilizing 200-400 mcg. of a solution containing 100 mcg. per ml. If significant improvement is not shown the following day, a repeat injection of 100-200 mcg. may be given.

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1950. He specializes in thoracic and cardiovascular surgery.

Derek Dominic Hughes, M.D., Nevada State Hospital, Nevada, has become a member of West Central Missouri Medical Society. Dr. Hughes is a native of Liverpool, England, received his preliminary education at St. Edwards College and his M.D. degree at the University of Liverpool in 1958. He specializes in psychiatry.

Elizabeth J. P. James, M.D., 807 Stadium Rd., has become a member of Boone County Medical Society. Dr. James is a native of Jefferson City, received her preliminary education at Lincoln University and her M.D. degree at the University of Missouri in 1965. She specializes in pediatrics and perinatal medicine.

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Ronald C. James, M.D., 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. James is a native of Jefferson City, received his preliminary education at the University of Missouri School of Mines and Metallurgy and his M.D. degree at the University of Missouri in 1965. He is in internal medicine.

Harold K. Kanagawa, M.D., 302 Bolivar, Jefferson City, has become a member of Cole County Medical Society. Dr. Kanagawa is a native of Stockson, Calif., received his preliminary education at Westminster College and his M.D. degree at Washington University in 1965. He specializes in internal medicine.

Tchang Man Kim, M.D., 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Kim is a native of Seoul, Korea, receiving his preliminary education at the Yon-Sei University and his M.D. degree at Severance Medical School in 1963. He specializes in radiology.

R. James Lanning, M.D., 2928 Main, Suite 400, Kansas City, has become a member of Clay County Medical Society. Dr. Lanning is a native of Ste. Genevieve, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1958. He specializes in urology.

Flordeliza B. Lefebvre, M.D., 902 Edmond, St. Joseph, has become a member of Buchanan County Medical Society. Dr. Lefebvre is a native of the Philippines, received her preliminary education at the University of the Philippines and her M.D. degree at the University of Santo Tomas in 1966. She specializes in anesthesiology.

Henry E. Lestmann, M.D., 202 Plum, Doniphan, has become a member of Butler-Wayne-Ripley County Medical Society. Dr. Lestmann is a native of San Bernardino, Calif., received his preliminary education at the University of Southern California and his M.D. degree at the University of Southern California in 1950. He is in general practice.

Dean C. Monroe, M.D., 803 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Monroe is a native of Anderson County, Kan., received his preliminary education at the College of Emporia and his M.D. degree at the University of Kansas in 1946. He specializes in psychiatry.

De Armond Moore, M.D., 1211 S. Glenstone, Springfield, has become a member of Greene County Medical Society. Dr. Moore is a native of Charlotte, N. C., received his preliminary education at Duke University and his M.D. degree at the Medical College of Virginia in 1945. He specializes in general surgery and industrial medicine.

Jose Raphael, M.D., 37 Northridge Dr., St. Joseph, has become a member of Buchanan County Medical Society. Dr. Raphael is a native of Bilbao, Spain, received his preliminary education at the Instituto de la Habana and his M.D. degree at the University of Havana in 1946. He is in psychiatry and general practice.

Frederick R. Ritzinger, M.D., 18 Cricklewood Place, Frontenac, has become a member of St. Louis County Medical Society. Dr. Ritzinger is a native of St. Paul, Minn., received his preliminary education at the University of Washington and his M.D. degree at the University of Illinois in 1948. He specializes in aviation medicine.

Sudha R. Saha, M.D., 419 Couch Ave., Kirkwood, has become a member of St. Louis County Medical Society. Dr. Saha is a native of East Pakistan, India, received his preliminary education at the Balurghat School and College and his M.D. degree at Calcutta University in 1962. He specializes in obstetrics and gynecology.

John P. Schutz, M.D., 1236 Jesse James Rd., Excelsior Springs, has become a member of Clay County Medical Society. Dr. Schutz is a native of Bethlehem, Pa., received his preliminary education at Moravian College and his M.D. degree at the University of Missouri in 1970. He is in general practice.

Ronald G. Shriver, M.D., 623 Pine Blvd., Poplar Bluff, has become a member of Butler-Wayne-Ripley County Medical Society. Dr. Shriver is a native of Fulton, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1970. He is in general practice.

David P. Trimble, Jr., M.D., 116 South St., Excelsior Springs, has become a member of Clay County Medical Society. Dr. Trimble is a native of Kansas City, received his preliminary education at the University of Kansas and his M.D. degree at the University of Arkansas in 1965. He specializes in internal medicine and rheumatology.

Eugene E. VanVranken, M.D., Missouri Division of Health, 221 W. High, Jefferson City, has become a member of Cole County Medical Society. Dr. VanVranken is a native of Ramsey, Ill., received his preliminary education at the University of Illinois and his M.D. degree at St. Louis University in 1946. He is in public health.

David G. Windsor, M.D., 600 East 22nd, Kansas City, has become a member of Buchanan County Medical Society. Dr. Windsor is a native of Stockton-on-Tees, England, receiving his preliminary education at Barnard Castle School and his M.D. degree at the University of Durham in 1961. He specializes in child psychiatry.

In Memoriam

Miller, Oliver J., M.D., Cape Girardeau, a graduate of St. Louis Physicians and Surgeons College, 1908; member Perry-Ste. Genevieve Counties Medical Society; age, 71; died Dec. 16, 1971.

Sherard, Julius C., M.D., St. Louis, a graduate of Howard University, 1930; member St. Louis Medical Society; age, 72; died Dec. 29, 1971.

Summers, Caldwell B., M.D., Kansas City, a graduate of Washington University, 1921; member Jackson County Medical Society; age, 75; died Dec. 31, 1971.

McMahon, Bernard J., M.D., St. Louis, a graduate of St. Louis University, 1917; member St. Louis Medical Society; age, 79; died Jan. 4, 1972.

When you prescribed Orinase® (tolbutamide, Upjohn) 14 years ago, you had to rely on our experience.

An orally active hypoglycemic agent principally indicated in relatively mild, adult, maturity-onset, non-ketotic diabetes; also, as a supplement to insulin therapy in selected diabetic patients, it may effect a stabilization of labile diabetes and reduce insulin requirements. Certain patients intolerant to chlorpropamide therapy at usual therapeutic doses have subsequently been successfully managed with Orinase (tolbutamide).

Use in mild asymptomatic diabetic patients with abnormal glucose tolerance tests not responding to diet therapy may result in improvement of the glucose tolerance test.

Use in conjunction with phenformin is indicated when optimal control is not obtained with Orinase or phenformin alone.

Contraindications: Orinase alone is not effective in juvenile or growth-onset diabetes nor in unstable brittle diabetes where insulin therapy is required.

Orinase should not be used: when diabetes is complicated by acidosis, ketosis, or coma, or when a history of repeated bouts of acidosis or coma is obtained; in the presence of other acute complications such as fever, severe trauma, or infections; and in patients with severe renal insufficiency. Insulin is indicated in these circumstances.

Pregnancy Warning: The safety and usefulness of Orinase during pregnancy has not been established either from the standpoint of the mother or the fetus. Animal studies have demonstrated feticidal and teratogenic effects of doses of 1,000-2,500 mg./kg./day, but application to human subjects unknown. Therefore, Orinase is not recommended for the pregnant diabetic, and when administering Orinase to women of childbearing age, these facts should be borne in mind.

Precautions: Diagnostic and therapeutic measures necessar for optimal control with insulin are also necessary with Orinase The patient on Orinase must be fully instructed: about th nature of his disease; how to prevent and detect complications how to control his condition; not to neglect dietary restrictions develop a careless attitude or disregard instructions relative t body weight, exercise, personal hygiene, and avoidance of infection; how to recognize and counteract impending hypoglycemia; how and when to test for glycosuria and ketonuria; ho to use insulin; and to report to the physician immediately if h does not feel as well as usual.

Caution, very close observation, and careful adjustment c dose are necessary when: insulin is withdrawn during the tri period in order to avoid ketosis, acidosis, and coma; thiazid diuretics are administered which may result in aggravation c diabetic state and increased tolbutamide requirement, temporary loss of control, or even secondary failure; treating patient with impaired hepatic and/or renal function and debilitated, ma nourished, or semistarved patients in order to avoid severe hypoglycemia which may require corrective therapy over sever days; and treating patients with severe trauma, infection, or su gical procedures where temporary return to insulin or additio of insulin may be necessary. Response to tolbutamide is diminished in patients receiving therapy with beta blocking agents

As some diabetics are not suitable candidates, it is essentia that the physician familiarize himself with the indications, limit of application, and selection of patients for therapy.

Patients must be under continuous medical supervision, an during the initial test period should communicate with the phys

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And that means you know quite a t about it.

On the one hand, you know that diet d weight control are the initial and essential undations for the management of adult-nset, non-ketotic diabetes. When these easures prove satisfactory, no additional erapy is indicated. On the other hand, you ow that if these measures fail the addition of Orinase to the regimen can often help lower blood sugar. Orinase lowers blood sugar as effectively today as it did when you first prescribed it.

You also know the importance of close monitoring of the patient. Although uncommon, severe hypoglycemia may occur if the dosage is not tailored to suit his requirements.

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ian daily, and during the first month report at least once weekly r physical examination and definitive evaluation. After a month, xaminations are recommended monthly or as indicated. Apearance of ketonuria, increase in glycosuria, unsatisfactory wering or persistent elevation of blood sugar, or failure to btain and hold clinical improvement indicate nonresponsiveess to Orinase (tolbutamide). Orinase does not obviate need for aintaining standard diet regulation. Uncooperative patients hould be considered unsuitable for therapy. Prescriptions should e refilled only on specific instruction of physician. In treating ild asymptomatic diabetic patients with abnormal glucose lerance, glucose tolerance tests should be obtained at three- six-month intervals. Orinase is not an oral insulin or a substite for insulin and must not be used as sole therapy in juvenile iabetes or in diabetes complicated by acidosis or coma where sulin is indispensable.

If phenformin is prescribed in combination with Orinase, apropriate package literature should be consulted.

Adverse Reactions: Severe hypoglycemia, though uncommon, ay occur and may mimic acute neurologic disorders such as erebral thrombosis. Certain factors such as hepatic and renal isease, malnutrition, advanced age, alcohol ingestion, and drenal and pituitary insufficiency may predispose to hypoglyemia and certain drugs such as insulin, phenformin, sulfonaides, oxyphenbutazone, salicylates, probenecid, monamine xidase inhibitors, phenylbutazone, bishydroxycoumarin, and henyramidol may prolong or enhance the action of Orinase and crease risk of hypoglycemia. Orinase long-term therapy has een reported to cause reduction in RAI uptake without producing clinical hypothyroidism or thyroid enlargement and at high doses is mildly goitrogenic in animals. Photosensitivity reactions, disulfiram-like reactions after alcohol ingestion, and false-positive tests for urine albumin have been reported.

Although usually not serious, gastrointestinal disturbances (nausea, epigastric fullness, and heartburn) and headache appear to be dose related and frequently disappear with reduction of dose or administration with meals. Allergic skin reactions (pruritus, erythema, urticaria, and morbilliform or maculopapular eruptions) are transient, usually not serious, and frequently disappear with continued administration. Orinase should be discontinued if skin reactions persist. Recent reports indicate that long-term use of Orinase has no appreciable effect on body weight.

Orinase appears to be remarkably free from gross clinical toxicity: crystalluria or other renal abnormalities have not been observed; incidence of liver dysfunction is remarkably low and jaundice has been rare and cleared readily on discontinuation of drug (carcinoma of the pancreas or other biliary obstruction should be ruled out in persistent jaundice); leukopenia; agranulocytosis; thrombocytopenia; hemolytic anemia; aplastic anemia; pancytopenia; and hepatic porphyria and porphyria cutanea tarda have been reported.

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From the Medical Schools

UNIVERSITY OF MISSOURI-KANSAS CITY

Groundbreaking ceremonies for the $13.2 million School of Medicine building of the University of Missouri-Kansas City were held on Jan. 18, 1972.

Described as an "expression in the physical arrangements of the philosophy of the School," the six-story building will provide 230,000 square feet of learning environment for one of the most unusual medical education programs in the nation.

The new structure will accommodate 400 medical students in the final four years of a six-year program that accepts young people out of high school. The program is designed to graduate 100 physicians a year with a combined liberal arts-medical degree.

Dr. Richardson K. Noback, dean of the UMKC Medical School, presided at the ceremonies which included a number of dignitaries in government, academic, health and community activities.

Following the ceremonies, a reception was held in the lobby of the Health Sciences building, 23rd and Holmes, where some of the medical classes are now being conducted. Other classes also are being held in the UMKC Dental School, UMKC Volker campus, Kansas City General Hospital and Medical Center, Children's Mercy Hospital and several other hospitals in the community.

The new Medical School opened in August 1971 with 94 students, including 36 third-year and advanced-standing medical students who will receive their Doctor of Medicine degrees in four years or less. This year's enrollment also includes 18 sophomores and 40 freshmen, both from the College of Arts and Sciences, who are working toward the combined A.B.-M.D. degree in six years.

During the first two years, course work involves 75% of time in liberal arts classes and 25%—including three afternoons a week, every Saturday morning, and ten weeks during the summer—in hospital-clinic-patient experiences. The student in his first day of classes out of high school is presented with an opportunity to meet with a patient in a hospital. During the final four years, students spend 75% of time in medical studies and the remaining 25% in continued liberal arts courses. Students pursue their studies through 48 weeks in each of the six years.

The new Medical School building will be located south of 24th street between Holmes and Charlotte. The fourth and fifth floors are designed to group the students into units of four "docent dozens" of 12 or 13 for a total of 50 each. Eight such groups of 50 will constitute the Medical School enrollment. A docent is a practicing clinical physician who also is a scholar, teacher and counselor. Each student will have his own private "office" and have immediate access to a patient interview room.

The third floor will contain the research laboratories, while the second floor will be devoted to information resources that include a library and audio-visual production facilities. The first floor will house a living theatre, lecture hall and offices for the deans and other administrators. The ground floor level will have electronic microscopy equipment.

UNIVERSITY OF MISSOURI-COLUMBIA

A new medical textbook, "Hematology: Principles and Practice," represents three years of work by *Charles E. Mengel,* M.D., a University of Missouri-Columbia professor, and two colleagues who have assembled the latest medical information on the science and treatment of diseases of the blood.

The 700-page book published this month by Yearbook Publishers, Chicago, contains several chapters on the diagnosis and treatment of malignancies of the blood, a subject not previously covered in textbook style. It describes the progress that has been made in the past three to five years in therapy of leukemia in children and at least one type of lymphoma (Hodgkin's Disease), a malignancy of the lymph nodes, in adults.

"Largely, combinations of chemotherapeutic agents are responsible for advances in the treatment of these diseases," Dr. Mengel says. "Survival—and I mean *healthy* survival—now can be expressed in terms of years rather than months."

The book is intended to supply the latest information on blood diseases for the medical specialist, the general physician or the medical student. Recent advances concerning megaloblastic anemias, erythrocytosis and polycythemia vera and circulating anticoagulants and blood fluidity are a few of the topics covered.

Collaborating on editing the book with Dr. Mengel were *Emil Frei, III,* M.D., associate director of clinical research at the University of Texas M. D. Anderson Hospital and Tumor Institute in Houston, and *Ralph Nachman,* M.D., associate professor of medicine at Cornell University Medical College, New York City.

Among other contributors are *Dr. Leonard H. Brubaker,* hematologist at the University of Missouri Medical Center; *Dr. John Lukens,* specialist in pediatric hematology and a former Missouri faculty member; and *Dr. Robert Carrolla,* who has been on the residency staff in the department of medicine at UMC and is currently working at the National Cancer Institute. Doctor Carrolla will return to Columbia in July to be chief resident in medicine.

Dr. Edward Siegel, a researcher at the Medical Center, is pursuing studies concerning the formation and actions of the thyroid hormones. Using cells grown outside the body, in incubators for long periods of time, he is probing for answers to questions important not only for understanding normal bodily processes, but, also, the derangements that give rise to various diseases like cretinism, hypothyroidism, and thyroid cancer.

A private philanthropic agency, the John A. Hartford Foundation, Inc. of New York, has recently awarded a grant of $119,821 to the University of Missouri to support Dr. Siegel's cell culture research for the next three years. Joining him in these studies are Research Associate *Elsie Siegel,* his wife and scientific collaborator of long standing, and Research Assistant *Ann Yang.* Others who will be collaborating are members of the Departments of Medicine, Biochemistry, and Pathology at the Medical Center.

WASHINGTON UNIVERSITY

Looking for ways to improve her country's medical program, the *Empress of Iran* has asked *Dr. Lauren V. Ackerman,* professor of surgical pathology and pathology, for a report on Iran's status in the field of pathology. Doctor Ackerman, who has won acclaim for his research in lung cancer, visited six medical schools in Iran in December. On his visit, he lectured and evaluated the schools' pathology departments. The trip was made in connection with an award given to Doctor Ackerman in 1971 for his work in cancer research.

Doctor Ackerman stated that "Iran is a developing country and much more advanced than its neighbors." He said that its medical schools are progressive.

E. James Anthony, M.D., Blanche F. Ittleson Professor of Child Psychiatry and President of the International Association for Child Psychiatry and Allied Professions, has been awarded a grant of $30,000 by the Commonwealth Fund of New York City. The grant is given in support of a four-year study project on the identification and prevention of psychiatric risk to children occurring during vulnerable periods of their growth and development and is to be conducted under the auspices of the International Association for Child Psychiatry and Allied Professions. The Commonwealth Fund is persuaded that the rising prevalence of serious mental illness among American children and youth underscores the urgent need for a system of child mental health services based on the preventive approach.

Arthur Z. Eisen, M.D., professor of medicine and head of the Division of Dermatology, was one of three dermatologic trustees elected to the board of the Dermatology Foundation at the annual meeting of the American Academy of Dermatology held recently in Chicago. Doctor Eisen came to Washington University School of Medicine in 1967 as associate professor and head of the Division of Dermatology. In 1971, he was promoted to professor.

ST. LOUIS UNIVERSITY

Several noted medical authorities gave special lectures at the School of Medicine late in January. *Dr. Henry N. Wagner, Jr.,* professor of medicine and radiology at the Johns Hopkins University and chief of the Division of Nuclear Medicine at Johns Hopkins, was the House Staff lecturer at the St. Louis University Hospitals on January 20-21. He spoke on *Radioactive Tracers in the Central Nervous System Disease* and *Radioactive Tracers in Cardiovascular Disease.* Noted internationally as an investigator and lecturer in the field of nuclear medicine, Doctor Wagner's lectures were attended by an overflow of physicians, residents and interns. Twelve House Staff lecturers are presented monthly by the School of Medicine. *Dr. Robert M. Donati,* director of the section of nuclear medicine at the School of Medicine and chief of Nuclear Medicine at Veterans Administration Hospital, is coordinator of the series.

Dr. Aristide H. Esser, director of the Social Biology Laboratory Research Center at Rockland State Hospital, Orangeburg, N. Y., and chairman of the Task Force on the Environment and Mental Health, American Psychiatric Association, presented a series of lectures sponsored by the Department of Neurology and Psychiatry. He discussed *Importance of Sub-Human Primate Studies for Psychiatry Grand Rounds, Territorial and Dominance Behavior in Institutional Settings and Environment and Mental Health Concerns* on January 25-26.

A strain of influenza virus identified as the Hong Kong A_2 strain was isolated in the Virus Laboratory, department of Internal Medicine, the latter part of January. *Dr. G. O. Broun, Sr.*, director of that laboratory isolated the strain from lung tissue, secured through the cooperation of *Dr. Robert Ramsey*, also a member of the faculty. The tissue was taken from a victim of a respiratory infection which showed clinical and pathological evidence of pneumonia. At the time of the isolation Doctor Broun stated that while this influenza showed that at least some of the respiratory infections then present were true influenza, he had had negative results in a number of other cases. This showed that infections of other type were also occurring at that time. Doctor Broun's virus infection studies have been supported by a grant from the Tuberculosis and Respiratory Disease Society of St. Louis. Investigations being conducted under this grant concern the relationship of respiratory infections to emphysema and other types of chronic obstructive lung disease.

Dr. D. Elliott O'Reilly, chairman of the Department of Orthopedic Surgery, was reelected treasurer of the American Academy of Cerebral Palsy at a recent New York meeting. He has served as treasurer of the Academy since 1969 and will be involved in the planning of the group's national meeting to be held in St. Louis on Dec. 6-10, 1972.

A reception for medical alumni will be sponsored by the St. Louis University Medical Association from 5 PM to 6:30 PM on April 8 during the meeting of the Missouri State Medical Association in Kansas City. The reception to be held in the Tea Room of the Muehlebach Hotel will be attended by *Dr. Robert H. Felix*, dean, School of Medicine and *Dr. Francis X. Lieb*, president of the Medical Alumni Association.

The St. Louis University Hospitals Medical and Dental Staff sponsored a dinner dance for house staff members and their wives Feb. 4. *Dr. Donald R. Judd*, president of the University Hospitals Medical and Dental Staff presided at the dinner held at Le Chateau Restaurant. Doctor Judd is President-Elect of St. Louis Medical Society.

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are not always reliable. The test must be carefully coor
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A streptococci. Deaths associated with sulfonamide
ministration have been reported from hypersens t
reactions, agranulocytosis, aplastic anemia and o
blood dyscrasias. Clinical signs such as sore throat, fe
pallor, purpura or jaundice may be early indications
serious blood disorders. Complete blood counts
urinalyses with careful microscopic examination sho
be performed frequently during sulfonamide therapy.
Precautions: Use with caution when impaired rena
hepatic function, severe allergy or bronchial asthma
present. In glucose-6-phosphate dehydrogenase-defic
individuals, hemolysis (frequently a dose-related re
tion) may occur. Maintain adequate fluid intake to p
vent crystalluria and stone formation.
Adverse Reactions: *Blood dyscrasias:* Agranulocyto
aplastic anemia, thrombocytopenia, leukopenia, he
lytic anemia, purpura, hypoprothrombinemia, methe
globinemia. *Allergic reactions:* Erythema multiforme (S
vens-Johnson syndrome), generalized skin erupt o
epidermal necrolysis, urticaria, serum sickness, prur
exfoliative dermatitis, anaphylactoid reactions, perio
tal edema, conjunctival and scleral injection, photose
tization, arthralgia, allergic myocarditis. *Gastrointes
reactions:* Nausea, emesis, abdominal pains, hepat
diarrhea, anorexia, pancreatitis, stomatitis. *C.N.S. re
tions:* Headache, peripheral neuritis, mental depress
convulsions, ataxia, hallucinations, tinnitus, vertigo
somnia. *Miscellaneous reactions:* Drug fever, chills, t
nephrosis with oliguria and anuria. Periarteritis no
and L.E. phenomenon have occurred with sulfona
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*Koch-Weser, J., *et al.*: *Arch. Intern. Med.*, *128*:399, 1971.

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Council Reports

(Continued from page 180)

VA system when needed; the other level is training as pediatric nurses to be used primarily at Glennon Hospital Outpatient Department. He stated that they are not offering certification or a degree, they will give certain credits.

Discussion followed regarding certification or licensure under the State Board of Registration for the Healing Arts or should or should not physician assistants be governed by state law. The consensus of opinion was that licensure is not the answer, but that certification should be considered. Dr. Mayer said that he is definitely for certification, but only if it is done in the proper manner.

Dr. Cope stated that the responsibility for physician assistants is definitely with the physician for whom he works, and if the assistant is licensed, the physician gives up this responsibility. Dr. Cope went on record as saying he thinks the training program should be approved as long as the physician assistant is to be under the supervision of a physician.

Dr. Thoma reported for the St. Louis University Medical School in the absence of Dr. Felix. Dr. Thoma stated that for a number of years, St. Louis University has been planning a remodeling program to modernize and increase its clinical facilities, teaching facilities and patient care areas. He stated that the bids were $3.5 million over their estimate of $15 million, and he said it would be difficult for them to raise the extra $3.5 million at this time. The new addition will be a specialty referral center.

Dr. Thoma said that Firmin Desloge Hospital will be rejuvenated and rebuilt to provide better rooms and more teaching and nurse stations. The new adjacent building will have diagnostic X-ray, therapy, physical medicine and rehabilitation, which will serve not only Desloge but, also, Bethesda Hospital. The adjacent facilities will be connected to the old building.

The Chairman thanked Drs. Mayer and Thoma for their reports.

APPROVAL OF COUNCIL MINUTES

The Chairman asked for approval of the Council minutes of the Sept. 18-19, 1971 meeting. On motion, duly seconded, the minutes of the previous Council meeting were approved as amended.

REMARKS OF THE PRESIDENT

Dr. Miller reported on a meeting of the Division of Health, the State Department of Education and the MSMA regarding ways in which these organizations might cooperate in improving health education in such fields as venereal disease, drug abuse and alcoholism. The Department of Education and the Division of Health have developed a proposed new program of VD education in the public schools. It also is evident that more teachers need to be properly trained at the state colleges in order to teach such health education courses. Dr. Miller stated that the MSMA offered to participate in these endeavors and the offer was readily welcomed. Health education in these fields must be directed at all levels of education with physicians involved. He indicated that he felt that all physicians should be vitally interested and that possibly an ad hoc committee should be named through the Public Affairs Commission to cooperate and collaborate with the Department of Education and the Division of Health in these endeavors. It

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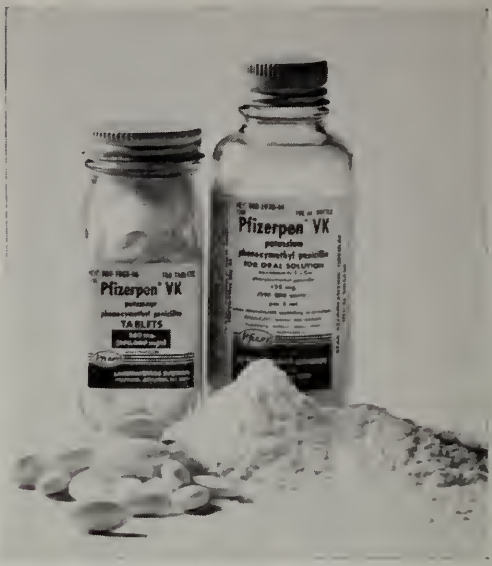

Orange-flavored Pfizerpen VK for Oral Solution (potassium phenoxymethyl penicillin)
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Pfizerpen VK Tablets (potassium phenoxymethyl penicillin)
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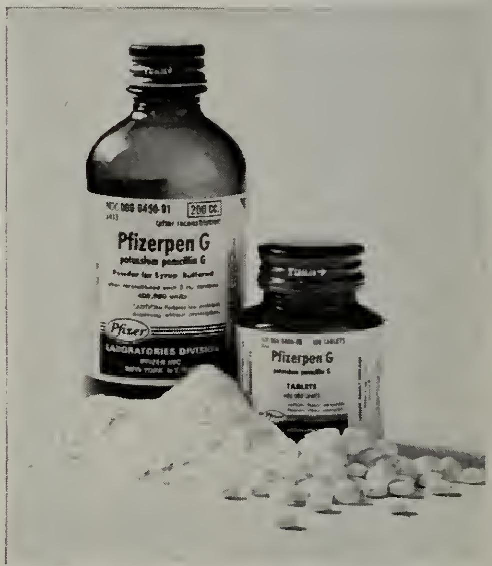
500 mg. (800,000 units): bottles of 100.



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was Dr. Miller's opinion that the meeting was a fruitful one.

Dr. Miller reported that the Public Affairs Commission has been working with the Missouri Regional Medical Program to develop a conference for trustees, hospital administrators and physicians regarding hospital organization in the 70's. Attending this particular planning meeting, which was chaired by Dr. Arthur Rikli, were representatives of the Hospital Association, Osteopathic Association, MSMA and the University of Missouri. The conference will be held in Jefferson City at the Ramada Inn on March 9, 1972 and, hopefully, there will be 500 people in attendance. Dr. Miller stated that he felt this is an extremely important effort in which the MSMA must participate and asked the Councilors to make every effort to support this participation in their respective districts.

Dr. Miller stated that he had spoken to the Council previously regarding the involvement of more capable members of the state medical association in the organizational affairs of the Association. He indicated that we must have dialogue beginning with the grass roots and that when Dr. Kerr presents the Planning Committee's assessment of the problem, some action should be taken to develop implementation to see to it that this organization has the most capable leadership that is available.

Dr. Miller said that in the matter of possibly procuring additional finances for MSMA and bringing all of medicine into closer unison, the MSMA might recruit specialty groups who do not have administrative facilities, but are in need of assistance, and that, at a given rate, we project our availability to do the administrative job for the specialty groups such as the OB-GYN Society, the Pediatric Society, etc. He also said that we should seek this opportunity to be responsible administratively for these groups and make our services available to them.

It was pointed out by Dr. Gunn that some of the local societies are doing this at the present time. However, this is not being done on a statewide basis.

Dr. Miller stressed the importance of unified participation in the practice of medicine and the trends in many states regarding obligatory membership in the local, state and national societies. The educational centers are doing a good job with continuing education. Dr. Miller stated that he felt the AMA is no longer reactionary and that participation in AMA is approximately 61%. Efforts must be made on the grass roots level to sell the matter of unification in the practice of medicine.

Dr. Miller suggested that a letter be drafted by Mr. Carroll and Mr. Allen Smith regarding the importance of unified membership in the organizational structure of medicine to be submitted to the presidents of the specialty groups within the state. Beyond that, hopefully, approval will be given to the idea that we submit a cover letter with the same communication to the presidents of other state medical societies indicating that this is what we are doing and we hope they will consider doing this in their respective states.

On motion of Dr. Gunn, duly seconded, this particular part of the president's remarks were tabled until Sunday morning when a letter would be submitted for approval.

Dr. Miller then reflected upon what the AMA has done regarding specialty section delegates in their House of Delegates. Dr. Miller indicated that he felt we need to avail ourselves of every opportunity to have input at the state, county and national level from responsible sections of medicine. In relation to this matter, he read a resolution proposing specialty group representation which the Cole County Medical Society expects to introduce at the 1972 MSMA Annual Session and recommended approval by the Council for recommendation to the House of Delegates for passage.

Dr. Matthews indicated that some of the county societies do not meet and some of the large societies have poor attendance. He stated that most of the physicians belong to a specialty group and this would give them, in essence, two representative ways of making themselves understood in the House of Delegates.

Lengthy discussion followed regarding the pros and cons of specialty group representation per se in the House of Delegates. It was suggested that the Cole County Medical Society could submit this resolution directly to the House of Delegates.

Dr. Miller called on Mr. Allen Smith to discuss a question raised concerning Junior Membership as spelled out in the MSMA Constitution and Bylaws. Mr. Smith indicated that they would like clarification of the Bylaws on Junior Members which reads as follows: "Junior members shall be limited to those members of component societies (1) who are serving a full-time internship or residency in a hospital approved by the Council on Medical Education of AMA, (2) and they shall continue as junior members for the first three years subsequent to the completion of accredited service." It was pointed out that, at the present time, junior membership is granted to some new members for three years after completion of accredited service, even though they were not members during their internship or residency. It was felt that this was in conflict with the present bylaws.

On motion of Dr. Gunn, duly seconded, it was agreed that this matter be referred to the Committee on Constitution and Bylaws to resolve this with a clear-cut definition of junior membership.

President Miller stated that the Council should be taking some action regarding our Association office requirements. He said that our present lease will expire in April, 1973 and the long range needs of the Association should be looked at. He called on Dr. Matthews to speak to this issue and asked that the Council take some action regarding MSMA's office facility needs of the future.

Dr. Matthews indicated that there is a very limited amount of property, represented in most part by old structures, within a convenient distance of the State Capitol and that most of these properties are being grabbed up as fast as they become available for various

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Association's headquarters. He stated that if it is appropriate, perhaps it would be advisable to suggest that someone be assigned to study this matter and report to the Council at a later date. Dr. Miller indicated that a committee could be set up so that immediate investigation could be started and that this committee be given the power to temporarily establish a holding mechanism in case property becomes available, until such time as proper information could be presented to the Council.

After brief discussion, Dr. McAlhany moved that the Council empower Drs. Matthews and Gulick and Mr. McIntyre to investigate the possibility of purchasing suitable real estate in Jefferson City, to authorize them to secure options, if necessary, and to report their progress to the Council at the January meeting. The motion was seconded by Dr. Hansbrough and carried.

It was suggested that perhaps we should meet with other organizations and work out something together rather than have our own building. Dr. McAlhany stated that he felt this should be the MSMA building. Dr. Cope stated that he felt a report should be made back to the Council in January so that some definite proposals can be made by the Council to the House of Delegates in April.

Dr. Miller stated that he wrote a letter to the President of the Kansas Medical Association regarding MSMA's concern about the high cost for abortions in Kansas being paid by Missouri residents. He enclosed a copy of the letter to be sent to the OB-GYN Society of Kansas. Dr. Miller and Mr. McIntyre spoke to the President and the Executive Secretary of the Kansas Medical Society during the AMA meeting in New Orleans and they are equally concerned. This will be submitted to the Kansas Society and the OB-GYN Society of Kansas and we should be receiving a reply regarding this problem.

HEALTH CARE FOUNDATION OF MISSOURI

Dr. Miller said that in the absence of Dr. Benoit, he would report briefly regarding the Health Care Foundation of Missouri. The Board met recently and several things should be brought to the Council's attention. Dr. Miller reported that the HCFM has hired a full-time Executive Vice-President, Mr. Mark Halvorson. Dr. Miller stated that he felt the Association owes a tremendous amount of gratitude to Mr. Royal O. Cooper for his fine work in the implementation of the HCFM.

The Board of the HCFM gave approval to appointing an Advisory Committee composed of representatives from management, labor, the Blues, HIC, CHP, University of Missouri, hospitals and a legislator. This has been part of the deliberations of the Board for some time and steps were taken to implement this.

Drs. Miller and Allen discussed the proposed application of the University of Missouri to obtain a grant from HEW that could be used to develop a uniform procedural coding system, in cooperation with the HCF. The input into this program also would be helpful to the Foundation in establishing guidelines and parameters and in determining continuing education programs. The Board approved the Foundation's participation in the development of this project. Brief discussion followed, and it was pointed out that this would be at no cost to the Foundation.

On motion of Dr. Bradshaw, duly seconded, the Council agreed to endorse this activity of the Health Care Foundation.

Dr. Bradshaw moved that Mr. Royal Cooper be commended by Council endorsement of Dr. Miller's remarks concerning him and that the Council also recognize his contribution in this endeavor. The motion was seconded and carried.

Dr. Miller stated that the Commission on Interspecialty Medicine gave unanimous support to the Health Care Foundation at its October meeting.

Dr. Washburn requested permission for the floor and made a few brief remarks regarding AMA President Dr. Wesley Hall's speeches at New Orleans in which Dr. Hall was critical of some aspects of AMA activities. Dr. Washburn reported that the House of Delegates has directed the Council on Long Range Planning to study Dr. Hall's criticisms and recommendations and to conduct hearings on this matter and to report recommendations to the House of Delegates. There will be open hearings for any member or group. They are to be held probably on Saturday before the 1972 Annual Convention in San Francisco. Anybody who has comments or suggestions about the operations of the AMA will be heard. Dr. Washburn asked the Council to be thinking about these hearings as the Delegates need instructions before they can appear before the AMA Council on Long-Range Planning.

Dr. Miller indicated that a personal application for membership in the Health Care Foundation, along with a covering letter, will be sent out to the membership in the near future. The application for membership reads as follows:

APPLICATION FOR MEMBERSHIP

Date: ....

TO: HEALTH CARE FOUNDATION OF MISSOURI

I, the undersigned, do hereby make application for participating membership in the Health Care Foundation of Missouri. I understand that no dues are involved.

As a member, I agree to abide by the decisions of the peer review committees as they relate to medical practice and fee determination, with the right of appeal.

I agree to participate in the work of the Foundation when requested to do so.

I understand that unless I submit a written resignation or lose my license to practice medicine in the State of Missouri, be suspended or removed from membership in the Foundation by the Board of Directors, my membership in the Foundation will be renewed automatically each year.

Name ....(M.D.)(D.O.)

Address ....

Dr. Miller asked the Council's support in getting the applications signed and returned.

On motion of Dr. Martin, duly seconded by Dr. Hetlage, the remarks of President Miller were accepted as amended. The motion carried.

AD HOC BLUE SHIELD AND BLUE CROSS

The Chairman called on Mr. Cooper to report on the meetings of both the Ad Hoc Blue Shield and Ad Hoc Blue Cross Committees. Mr. Cooper stated that the reports of these meetings were distributed to the Councilors for information only because they have not been submitted to the MSMA Commission on Medical Economics, Third Party Medicine and Governmental Relations. The Commission will be holding a meeting in January.

It was pointed out by Dr. McAlhany that the reason for the submission of the resolution, "Method of Reimbursement to Hospitals by Blue Cross," was to determine how Blue Cross functions. This information is necessary if physicians are going to aid in keeping down the escalating costs of health care. Mr. Cooper indicated that the two plans in Missouri have submitted data concerning determination of rates, methods of reimbursement and cost control programs. The Committee has recommended to the Commission that this information be furnished in some form to MSMA members.

Discussion followed regarding a trend in several states to replace physician and hospital representatives on Blue Cross Boards with consumer representation.

Discussion also was held regarding surgicenters and the impact they might have regarding cost of medical care. Dr. Chandler pointed out that if hospital utilization were cut only slightly, tremendous savings could be obtained. The Council agreed that no decision should be made at this time regarding surgicenters, since several of the speakers for the Public Affairs Conference will be speaking on this subject and, in all probability, resolutions concerning the subject will be introduced in the upcoming MSMA House of Delegates.

114TH ANNUAL SESSION

Copies of a preliminary program for the 114th Annual Session were distributed to the Council. Mr. Fox indicated that the program is progressing well. Fourteen specialty societies are sponsoring some 19 sessions for the Annual Meeting. Many of these specialty groups are having dinner meetings, also. Two general sessions will be held—a General Session on Peer Review will be held on Friday morning and the General Session will be on Comparative Costs of Medical Care on Saturday morning. The preliminary program of the coming session appears in the January issue of Missouri Medicine.

Dr. Chandler reported on the progress of the Committee on Arrangements for the Annual Session, particularly regarding the Presidents' Banquet on Saturday night. He indicated that the Greene County Boys will entertain for some 30 to 40 minutes. There will be the usual presentation of the 50-year pins and the President's plaque. He stated that he felt this should be a nice, gala affair and asked if it would be possible for all hospitality rooms to be closed during the Saturday night festivities. A 17-piece orchestra has been hired to play for three hours of dancing. Discussion followed regarding the possibility of this being a black tie affair and whether or not the hospitality rooms should be asked to close. It was decided that hospitality rooms should be encouraged to close for the Saturday night events and that black tie be encouraged but not obligatory.

LEGISLATIVE REPORT

Dr. Matthews, Chairman of the Committee on Legislative Affairs, stated that there is considerable confusion concerning what will happen in relationship to both

House and Senate bills presently in control of the House and the Senate. He said most representatives and senators are introducing the bills to be on the safe side. He gave a brief report on the health and medical bills which have been introduced thus far. A rundown of these bills will appear on the yellow insert page of the January, 1972 issue of MISSOURI MEDICINE.

After brief discussion, on motion of Dr. Gunn, duly seconded, the report of the Committee on Legislative Affairs was approved with thanks.

On Sunday morning, a proposed letter was read. It is to be sent to the presidents of the specialty societies in Missouri with copies to be sent to other state associations, along with a covering letter, pointing out that this is what is being done in Missouri.

On motion of Dr. Hetlage, duly seconded, the Council approved sending the letter.

REPORT OF THE AMA DELEGATES

Dr. Neilson presented a brief report on the activities at the AMA Interim Session held in New Orleans on Nov. 27 to Dec. 1, 1971. He stated that the Missouri delegation held a caucus on Sunday morning prior to the first session to study all new material not included in the Handbook. Dr. Neilson called attention to Resolution #14 concerning Medical School Admission Policies which was introduced by the Oklahoma Delegation. Missouri was aware of the necessity of supporting this resolution and it was adopted as amended and referred to the Council on Medical Education.

Dr. Neilson then stated that Resolutions #11, #12 and #22 were considered together since they all relate to rising costs of hospital care. Resolution #22 concerned the relief of hospital patients' financial responsibility for hospital-based educational and training programs. The Reference Committee recommended a substitute resolution in lieu of Resolutions #11, #12 and #22 and that progress reports be submitted to future session of the House—adopted. Resolution #37—Confidentiality of Medcal Records—would have the AMA request the Joint Commission on Accreditation of Hospitals to change their standards relating to medical records. This resolution was approved and referred to the Board of Trustees for report back in June, 1972.

Dr. Neilson briefly discussed President Wesley Hall's address to the AMA House of Delegates where he again called for a constitutional convention or some other method to accomplish a basic review of the Association's structure. He said the House adopted a proposal charging the Council on Long-Range Planning to consider the subjects of "constitutional change, organizational structure, and delineation of committee responsibilities" and to hold open hearings on these subjects at the next two House meetings, reporting to the House in June, 1973.

Dr. Neilson reported that Vice-President Spiro Agnew spoke to the AMPAC Dinner and was somewhat critical of the AMA in certain areas.

He reported that all four AMA Delegates and Alternates, as well as Officers and other members, were in attendance. He thanked them, as well as Mr. and Mrs. McIntyre and the other members of the staff who worked so hard during the convention.

A summary of the actions of the Interim Session will appear in the January, 1972 issue of MISSOURI MEDICINE.

The Chairman thanked Dr. Neilson for his report and on motion of Dr. Franklin, duly seconded, the report was approved.

RESOLUTION RE: SUPPORT OF MISSOURI STATE CONSERVATION COMMISSION

Dr. Neilson called attention to the resolution in support of the Missouri State Conservation Commission, which was considered by the Council at its meeting in September with the Council deciding to table the resolution until its December meeting. Dr. Neilson requested the Chairman not to take the resolution off the table at this time and requested that the Council ask Mr. Carl Noren, Director of the Conservation Department, to appear before the Council and present further information.

On motion of Dr. Franklin, duly seconded, the resolution was left on the table.

WHY AMA MEMBERSHIP?

Mr. Tim Norbeck, Field Representative of the AMA for Missouri, spoke briefly about why physicians should join the AMA and the benefits available to them. He stated that there are a number of services available through the AMA, but that many physicians choose not to avail themselves of these services. He called attention to the Law Department which constantly gives out opinions and other information; the Department of Investigation, which stays abreast and works against all types of quackery; the AMA Speakers Bureau; the AMA publications, such as *JAMA*, specialty journals and all types of pamphlets, etc. He said the AMA also has retirement and disability programs, and the AMA has undertaken several pilot programs, one in California and one in Oregon, working toward a national coverage for professional liability through AMA and state medical societies.

Mr. Norbeck reviewed activities of the Congressional representation in Washington, D. C. and their successful efforts in regard to medical legislation. He stated that if organized medicine wants to remain strong, it is in the best interest to keep the AMA strong.

Dr. Cope requested that a copy of Mr. Norbeck's remarks be furnished to each Councilor. Mr. Norbeck agreed to supply a copy, which the staff could duplicate and send to each Councilor.

After further discussion, Dr. Gulick moved that the Editor of MISSOURI MEDICINE be requested to consider printing an article by Tim Norbeck entitled, "Why AMA Membership?," to be followed by an article entitled, "Why MSMA Membership?," the latter article to be written by an officer of MSMA or by the Editor. Motion was seconded by Dr. Matthews and carried.

REPORT OF THE PLANNING COMMITTEE

Dr. Kerr, Chairman of the Planning Committee, presented the report of the meeting held on Nov. 14, 1971 in Columbia. He stated that he had checked into the profitability of audio-medical digests, one fund-raising proposal suggested by the Committee at a prior meeting, and found that the market is glutted and profitability is doubtful.

The Committee then considered the matter of proposed additional insurance programs for Association members. Two proposals were presented; one is for an excess major medical insurance program, which includes dental services, and the other is for a group life insurance policy. The Committee voted to recommend to the Council that an advisory study committee on insurance and investment matters be appointed by the President of the Association to (1) decide if such programs are a needed function of MSMA and (2) if they are a needed function, to establish a protocol in regard to what should be done in the field of insurance and investment.

After discussion, on motion of Dr. McAlhany, duly seconded, this portion of the report was accepted.

Dr. Kerr stated that the Committee then considered the second and third items on the agenda which had to do with possible ways to reorganize the Association in order to increase the participation of younger members as well as to give members a greater voice in the selection of Councilors and Officers and possible ways in which medical students and house staffers can be an active part of organized medicine. Dr. Kerr mentioned that it is difficult to obtain names of members who wish to serve on Association committees.

Dr. Miller stated that his Advisory Committee had expressed interest in both of the subjects under discussion and that Dr. Fairchild, a member of the Advisory Committee, had been asked to suggest ways in which students and house staff members could be better informed concerning organized medicine. Dr. Fairchild presented a number of recommendations which were spelled out in the Committee's report which was distributed to the Councilors.

The Committee voted to recommend to the Council that the Council consider the Association's Constitution and Bylaws and reexamine the tradition by which officers of the Council and of the Association are elected in order to stimulate greater interest of the general membership in the Association.

The Committee then considered ways to interest new practicing physicians in organized medicine. The Committee voted to recommend to the Council that an intensive one-on-one program be devised to interest young practitioners in the county and state associations with each Councilor being responsible for carrying out this program within his district. The MSMA office would be directed to periodically inform Councilors of new members in their district. A list of all new members in the past two years in each district would be sent to the individual Councilors.

After discussion, on motion of Dr. Hetlage, duly seconded, this portion of the report was accepted.

The Committee voted to recommend to the Council that the MSMA staff be authorized to upgrade the information brochure which goes to all new members of the Association. The Committee members are making recommendations to this effect.

The Committee on Planning requested the Council to recommend that the Committee on Communications devise a method of rapid two-way communications between the Association office and the membership.

The Committee also urged greater use of MSMA committee and commission members as moderators at programs during the Annual Session.

On motion of Dr. Miller, duly seconded, the report of the Planning Committee was approved.

The matter of establishing a policy in 1973 of giving prospective exhibitors a choice of either having a booth or giving a financial grant to be used for the educational portion of the program was again brought up for discussion. It was pointed out that some firms could possibly do both, take a booth and also sponsor a speaker, with proper acknowledgement in the program.

After discussion, on motion, duly seconded, it was agreed that the Association policy concerning exhibits at annual sessions be altered to accommodate participation in this plan as proposed by the Executive Secretary.

COUNCILOR DISTRICT REPORTS

District #1—Dr. Martin stated that this is a meeting of the Council and he felt that more time should be allotted for the Councilors to give their reports and that these should be presented as one of the first items on the agenda. After a brief discussion, on motion of Dr. Matthews, duly seconded by Dr. Miller, it was agreed that in the future, Councilor District reports will be given during the first morning session of the Council Meeting. Dr. Martin indicated that the First Councilor District Meeting was held on November 17, but that he was rather disappointed with the attendance.

District #2—Dr. Bach indicated that he had nothing of importance to report to the Council at this time.

District #3—Dr. Franklin thanked the Council and Officers for all the good wishes sent to Mrs. Franklin during her hospitalization.

He reported that St. Louis Medical Society recently held its election of officers and Donald Judd, M.D., was elected as President-Elect. Dr. Franklin invited those present to attend the installation of officers to be held on Tuesday, January 11.

Dr. Franklin stated that Dr. O'Neal, President of the St. Louis Medical Society, wrote letters to the class presidents of the medical schools at Washington University and St. Louis University asking for nominations to committees of the St. Louis Medical Society. Arrangements are being made to have Council meetings with St. Louis County on six occasions during the next year.

The St. Louis Medical Society Medical Museum has received national accreditation. It is one of 38 applicants out of 450 who received this distinction. He indicated to the Council members that if they have any rare items for the medical museum, it would be glad to accept them.

He indicated that there was very good attendance at a one-day forum on medical quackery which was cosponsored with the Better Business Bureau.

Dr. Franklin reported that the St. Louis Medical Society does office work for some of the local specialty societies.

He further reported that they are moving along on educational programs to secure funds for the rehabilitation of drug addicts projects.

Dr. Franklin stated that the fourth Councilor District held an excellent district meeting with a number of physicians from St. Louis and congratulated Dr. Hetlage on a fine meeting. It was well attended.

Dr. Franklin then reported on the activities of the Communications Committee regarding the journalism awards proposed for newspaper, television and radio. Dr. Cope had suggested that entries also should be taken from students of journalism. However, the Committee felt that if such an award were presented to a student, it might not receive the wide publication that we hope for and it is felt, at this time, that if we are going to improve communications, we must receive publication.

Dr. Hetlage moved that the Council authorize the expenditure of up to $450 per year for awards in the categories of newspaper, radio and television. Motion was seconded by Dr. Gunn and carried.

Dr. Franklin asked the Council for suggestions regarding possible winners of these three categories and asked that they be made as soon as possible so the awards can be granted at the Annual Session. It was pointed out that an independent group will do the judging, possibly from the Journalism School.

District #4—Dr. Hetlage reported that he has been holding monthly meetings with the officers of medical societies within his district because he feels this is important for improved communications. He stated that they are trying to appoint committees and commissions within the district, and he also is encouraging the county societies to run their societies as St. Louis City and County and as many other societies do with a Council to appoint committees, etc. and encouraging younger men to become involved in organized medicine. District committees have been set up on Continuing Medical Education and a committee to work with Mr. Hughes on Blue Shield. The County Societies have been asked to appoint ad hoc committees concerning physician assistant and relative to HMO's.

Dr. Hetlage thanked the St. Louis Medical Society for its assistance in gaining the good attendance at the Fourth Councilor District meeting. Material has been distributed to physicians throughout his district regarding the AMA's stand on HMO's, CHP's, etc. Dr. Hetlage stated that they are pleased with the physicians new input into Blue Shield and participation in their decisions. He reported that his district is in favor of an interim MSMA scientific meeting, but would discuss this at the next meeting.

Dr. Hetlage said that the drug committees have been appointed in St. Charles-Lincoln and St. Louis County Medical Societies.

Dr. Hetlage indicated to Dr. Franklin that it would be appreciated if officers of the other societies in the fourth Councilor District could be invited to the joint council meetings of St. Louis Medical and St. Louis County.

Dr. Hetlage reported that the St. Louis County Medical Society feels that it should recommend to the Council that they go on record as encouraging legislation specifically requiring the certification of physician assistants and that this be done under the Board of Healing Arts. Specific requirements should be written into that law to prevent an uncontrolled use of physician assistants by men who may not be qualified to do so. He then read the following resolution proposed by the St. Louis County Medical Society and Fourth Councilor District:

Whereas, There is a need to extend the services that Missouri physicians can provide, and

Whereas, One mechanism for this is the use of the physician's assistant, and

Whereas, Public acceptance of this new variety of medical technician can be expected, especially in those areas presently experiencing a shortage of physicians, and

Whereas, If we, as physicians, are not actively involved in all phases of the training and supervision of the physician's assistant, and do not encourage control by legislation, they may develop their own programs and licensing boards, outside the Board of Healing Arts, now therefore, be it

Resolved, That this Council of the MSMA goes on record as further endorsing the concept of the physician's assistants for the State of Missouri, and be it further

Resolved, That this Council encourages legislation to be introduced in the legislature of this state leading to certification of physician's assistants under the Board of Healing Arts, providing such legislation is compatible with such national certification boards as may be established by the AMA, and be it further

Resolved, That this Council and the members of the MSMA make themselves available to those institutions of learning in this state that are planning, or have begun the training of physician's assistants, for advice and direction, so that from the beginning, these programs will produce assistants of proper caliber and education, oriented to the practicing physician, and be it further

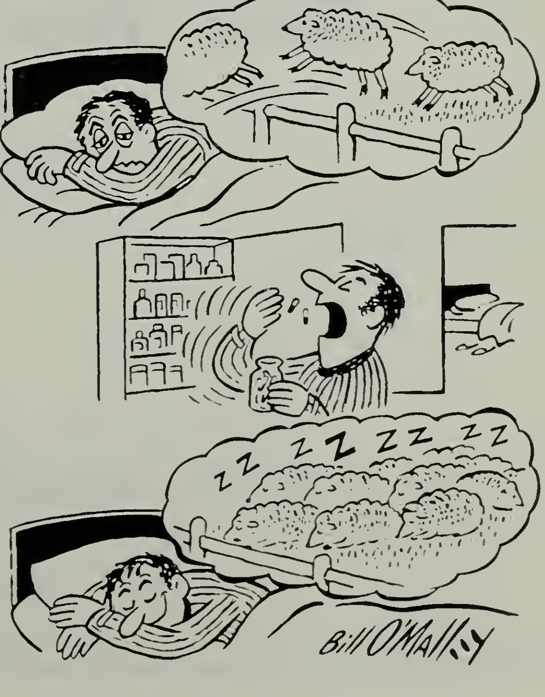
Resolved, That this Council, through its staff, be kept informed of any changes in programs of training and certification of physician's assistants which may be promulgated by the AMA so that the program in Missouri may complement such programs as may be developed in the future.

Discussion followed regarding Colorado and the experience which they have had with their law regarding physician assistants. Dr. Matthews stated that, traditionally, RNs and LPNs have been physician assistants, and he felt it should be emphasized to physicians that they already have these people in their offices and as now licensed can perform many more tasks than physicians will allow them to do. Dr. Hansbrough stated that foreign medical graduates are now being licensed, and although the physician assistants may be needed now, this may not be the case in the future. He further indicated that he did not feel this would alleviate the physician manpower shortage in the state since the physicians mostly interested in the physician assistants are specialists in the metropolitan area.

Following further discussion, Dr. Hetlage moved that the resolution be accepted and be referred to the Ad Hoc Committee on Physician Assistants, which is chaired by Dr. Stoneman, for study, and that appropriate legislation be considered which would provide for certification of physician assistants under the State Board of Registration for the Healing Arts. This Ad Hoc Committee to report back to the Council at the January Council Meeting. The motion was seconded and carried.

District #5—Dr. Cope reported that his District Meeting on November 4 was well attended. Dr. Miller spoke, as did Mr. Alan Bloom of HEW. Dr. Cope then discussed briefly the appropriateness of medical care in certain situations.

District #6—Dr. Bradshaw reported on his Councilor District Meeting and said that approximately 70 were in attendance. Senator Cason was the speaker and gave an interesting program regarding the role legislators can play and how they can be helpful.



District #7—Dr. Chandler reported that Jackson County has an ad hoc committee which is meeting with the Mayor of Kansas City who is responsive to the idea of possibly developing a pilot HMO in Kansas City. Jackson County Medical Society, following a routine investigation by the IRS, recently received a letter from IRS indicating that their tax exempt status will continue. Membership applications in the Jackson County Medical Society have doubled in the past few months.

Dr. Chandler reported that Jackson County has been approached again by another HMO planning group which wants the Medical Society's endorsement for a feasibility study. Tentative endorsement was given to the primary purpose of this study.

Another Neighborhood Health Center has been started in Kansas City.

District #8—Dr. McAlhany reported that the Community Organization for Drug Abuse Control (CODAC) in Springfield now has a full-time Executive Secretary, a Board has been created and the schools are cooperating. They also are in the process of establishing a crises intervention center. He indicated that it will take time to see how this project in Greene County will function.

Springfield will have a commercial blood bank which is a branch of the Kansas City bank. A physician is being sought in Springfield to supervise it. This would be in competition with the local Red Cross which functions well.

District #9—Dr. Stricker reported that a Councilor District meeting was held in Salem and the attendance was very good. He indicated that both Dr. Miller and Dr. Benoit attended and spoke to the group.

District #10—Dr. Hansbrough indicated that the Tenth Councilor District held its meeting in conjunction with the annual Southeast Missouri Cancer Conference. He felt that attendance could have been better. He stated that Dr. Noback spoke at the meeting regarding the University of Missouri Medical School at Kansas City. He said that no application for the K C Medical School has been submitted from the Tenth Councilor District.

He stated that he has been visiting and talking to the medical societies in his district and feels that this is the best contact a Councilor can make.

Dr. Hansbrough reported that the main point he wished to make during his Councilor District Report at the September Council Meeting regarding medical care cost did not appear in the minutes. He stated that he wishes to stress the point that in Southeast Missouri, there are two coronary care units—one costing approximately 25 times more than the other. Many people feel that if federal funds are involved, they must spend them. He further indicated that it is not necessary to have some of the expensive medical equipment, such as the heart-lung machine, located on every corner. Physicians are in a position to be most helpful in reducing the overall cost of medical care by assisting in eliminating duplication of costly medical facilities in many situations. Dr. Hansbrough stated that he felt surgicare is an attempt to cut down the health care delivery costs and save patients' money.

NEXT COUNCIL MEETING

The next Council Meeting will be held on Friday and Saturday, January 28 and 29, at the Ramada Inn in Columbia, preceding the Public Affairs Conference to be held on Saturday afternoon, Jan. 29 and Sunday, Jan. 30, 1972.

Have You Made Your Reservations?

Today! Write or Call

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MISSOURI STATE MEDICAL ASSOCIATION

114th ANNUAL SESSION

April 6-9, 1972

FINANCIAL STATEMENT FOR THE YEAR 1971

LENNERTSON & COMPANY
Certified Public Accountants
ST. LOUIS, MISSOURI 63105

January 27, 1972

Missouri State Medical Association
515 East High Street
Jefferson City, Missouri 65101

Gentlemen:

A review was made of the accounts of the Missouri State Medical Association, a non-profit Missouri corporation for the year 1971, and a report thereon is presented together with the following exhibits:

Exhibit A	Balance Sheet
Exhibit B	Income Statement
Exhibit C-1	Statement of Commissions and Meeting Expenses
Exhibit C-2	Statement of Investments
Exhibit D	Dues Receivable and Memberships by Societies

It should be noted that members' dues and investment income are taken into income on the cash receipt basis whereas the other accounts are maintained on the accrual basis. Rentals received in advance for Annual Session exhibit space are shown as prepaid and carried forward to the year to which they apply.

Scope of Examination

The Balance Sheet at December 31, 1971 and the Income Statement for the year then ended were reviewed. Examinations or tests were made of the accounting records, in the manner and to the extent deemed appropriate, without making a detailed audit of the transaction.

Recorded cash receipts for the year were traced in total into the bank as deposits and disbursements for the period were substantiated by an inspection of paid checks, purchase invoices and other data on file.

Selective tests were made of the income and expense accounts for the period. It was noted that space in the Journal was contributed to the United States Treasury Department for bond advertising, to members for small classified ads, and to public service organizations.

Income Statement

The financial result of activities of the Association for the year 1971 was an excess of income over expenses of $9,952.21 as set forth in Exhibit B.

Balance Sheet

The financial position of the Association at December 31, 1971 is presented in Exhibit A. Comments on the larger balance sheet accounts follow:

Cash in banks, as shown by the books, was reconciled to the regular monthly bank statements and confirmations received from the depositaries. The petty cash fund was verified by physical count.

Investments with a cost of $162,733.91 were confirmed by a statement from the custodian, Mercantile Trust Co. Investment income for the year was as follows:

Interest—Certificate of Deposit	$ 6,893.61
Interest and discount on bonds	3,380.15
Dividends on Stock	2,439.34
Total Investment Income	$12,713.10

Accounts Receivable—Advertisers of $5,625.45 represent the unpaid balance due from Journal advertisers. Of this amount $5,596.45 was due from the State Journal Advertising Bureau as follows:

December 1971	$2,309.14
November 1971	3,019.99
Prior to November 1971	267.32
Total	$5,596.45

On January 10, 1972 a check was received paying $2,722.32 of the November and prior accounts.

Unpaid dues of $4,462.50, offset by a reserve account in like amount, represent 1971 dues of delinquent members carried at the request of local Societies. Other delinquent members were dropped from membership in accordance with the by-laws. Exhibit D presents a summary of unpaid dues and membership by Societies, as shown by the records of the Association.

Furniture and fixtures continue to be stated in the fixed amount of $1,000. Equipment purchases, rentals and repairs for the year in the sum of $2,581.02 were charged to expense in lieu of depreciation.

The records were carefully reviewed for liabilities at December 31, 1971 and it is believed that all current liabilities of substantial amount are included in the Balance Sheet.

Exhibitors have made advance payments of $3,625.00 for annual session exhibit space and these payments will be taken into income when earned in 1972.

The excess of assets over liabilities in the amount of $173,068.25 is shown in the Balance Sheet as a "Reserve for Future Activities."

General

During the year, payments were made to and for the following sponsored organizations:

Missouri State Medical Association Pension Fund	
Employees' Retirement Insurance Pension	$ 6,538.47
Employees' Pension Plan Contribution	10,076.10
Total	$16,614.57
Missouri State Medical Foundation—Insurance, audit and printing	$ 3,279.70

Collections for the American Medical Association and the Missouri State Medical Foundation are made along with the Missouri State Medical Association annual dues. Following is a schedule of dues and assessments for each member:

	Active	*Junior*
Journal	$ 3.00	$ 3.00
Association General Fund	62.00	29.50
Foundation Assessment	10.00	5.00
Missouri State Medical Association—Dues and Assessments	$ 75.00	$ 37.50
American Medical Association	110.00	110.00
Totals	$185.00	$147.50

Except for $97.50, the 1971 collections of $36,824.50 for the Missouri State Medical Foundation have been remitted along with $32.50 due from the year 1970. The $110 per member collected for the A.M.A. totalling $352,610.00 has been remitted except for $330.00.

Insurance policies were inspected and the following general insurance was in force at the close of the year:

Insurance on	*Type of Coverage*	*Amount*
Furniture and Fixtures	Fire and Extended Coverage (80% co-ins.)	$6,500
Employees	Workmen's Compensation	Statutory
Lessee's Liability	Bodily Injury	$50,000/100,000
Employees & Treasurer	Fidelity Bond	$10,000
Journal Publication	Publisher's Liability ($2,500 deductible)	$500,000
Journal Publication	Advertisers' Libel ($2,500 deductible)	$500,000
Automobiles of Three Assistant Secretaries	Non-ownership—Bodily Injury	$100,000/300,000
	Non-ownership—Property Damage	$25,000
Executive Secretary Leased Auto	Non-ownership—Bodily Injury	$100,000/300,000
	Non-ownership—Property Damage	$50,000
	Non-ownership—Collision	$100 Deductible
Members and Auxiliary Members on M.S.M.A. business under age 70	Travel Accident (away from home)	$25,000/250,000

The Association's attorney advises that a suit has been filed against the Association to recover funds advanced to the Health Care Foundation of Missouri, Inc., in the year 1970. The attorney states that the suit is without merit.

Subject to the comments thereon, the attached statements, in our opinion fairly present the financial position of the Missouri State Medical Association at December 31, 1971 and the result of the activities for the year then ended. The records for the year were kept in accordance with accepted principles of accounting applied on a basis consistent with that of the preceding year.

Yours very truly,
Lennertson & Co.

Exhibit A

Missouri State Medical Association
Balance Sheet, December 31, 1971

Assets

Cash		
Mercantile Trust Co. (Treasurer's Account)	$ 9,469.20	
Central Missouri Trust Co. (Secretary's Account)	668.97	
Petty Cash Fund	25.00	$ 10,163.17
Investments at Cost (Exhibit C-2)		
Certificate of Deposit	$ 37,000.00	
U. S. Government Bonds	49,942.85	
Corporate Bonds	5,000.00	
Corporation Stocks	70,791.06	
Total (Market Value $174,242)		$162,733.91

Accounts Receivable		
Advertisers	$ 5,625.45	
Mercantile Trust Co.—Investment Custodian	2,643.51	8,268.96
Dues Receivable—Exhibit D (See Reserve—Contra)		4,462.50
Furniture and Fixtures (at stated value)		1,000.00
Advances for Travel Expenses		377.31
		$187,005.85

Liabilities

Accounts Payable		
Supplies and Expenses	$ 5,259.63	
Payroll Taxes	51.97	
Due Missouri State Medical Foundation	97.50	
Due American Medical Association	330.00	
Deposits	111.00	$ 5,850.10
Deferred Credit to Income		
Advance Payments by Exhibitors for 1972 meeting		3,625.00
Reserve for Uncollected Dues		4,462.50
Reserve for Future Activities		
Balance January 1, 1971	$151,950.62	
Reinvestment of Permanent Investment Income	5,354.97	
Gain on Sale of Investment	5,810.45	
Excess of Income over Expenses for the year 1971—Exhibit B	9,952.21	173,068.25
		$187,005.85

Exhibit B

Missouri State Medical Association
Income Statement, for the Year 1971

Particulars	*General Activities*	*Journal Publication*	*Total*
Income			
Dues Received (including $3.00 per member annually for the Journal)	$227,515.50	$11,802.00	$239,317.50
Rentals—Annual Session Exhibit Space	10,300.00		10,300.00
Subscriptions to the Journal—Nonmembers		1,207.26	1,207.26
Advertising Space—The Journal		39,310.53	39,310.53
Investments—Interest and Dividends	12,713.10		12,713.10
Collection Fees on A.M.A. Dues	3,538.40		3,538.40
Collection Fees on Taxes Withheld	44.95		44.95
Total Income	$254,111.95	$52,319.79	$306,431.74
Expenses			
Salaries	$103,442.73	$14,475.00	$117,897.73
The Journal—Paper, Printing, Etc.		45,579.04	45,579.04
Cash Discount to Advertisers		140.55	140.55
Commission on Journal Advertising		5,739.40	5,739.40
Auto Expenses	1,785.08		1,785.08
Commissions and Meeting Expense	54,025.19		54,025.19
Custodian Fees—Investments	408.15		408.15
Dues and Subscriptions	465.00		465.00
Employees' Pension Plan Contribution	16,614.57		16,614.57
Equipment Purchases, Rentals and Repairs in lieu of Depreciation	2,134.12	446.90	2,581.02
Insurance—General	663.00		663.00
Insurance—Blue Cross	1,334.86	259.42	1,594.28
Missouri State Medical Foundation	3,279.70		3,279.70
Office Rent and Light	6,888.69	752.65	7,641.34
Postage	3,542.93		3,542.93
Professional Fees	6,894.76	2,400.00	9,294.76
Reinvested Reserve Income	5,354.97		5,354.97
Stationery, Printing and Office Supplies	3,474.44		3,474.44
Student Awards	225.00		225.00
Taxes—Payroll	3,181.32	557.96	3,739.28
Taxes—Other	795.98		795.98
Telephone and Telegraph	5,986.90	1,015.31	7,002.21
Traveling Expenses—Executive Secretary and Assistants	4,635.91		4,635.91
Total Expenses	$225,113.30	$71,366.23	$296,479.53
Excess of Income or (Expenses)	$ 27,858.65	($17,906.44)	$ 9,952.21

Exhibit C-1

Missouri State Medical Association
Statement of Commissions and Meeting Expenses for the Year 1971

Annual Session		$16,812.93
Council		10,473.49
Delegates to A.M.A.		12,289.96
Public Affairs		9,140.56
Woman's Auxiliary		2,269.61
Commissions:		
Commission on Medical Economics, Third Party Medicine, and Governmental Relations	$ 505.25	
Commission on Continuing Education and Health Manpower	219.64	
Commission on Medical-Legal Affairs	1,190.75	
Commission on Interspecialty Medicine	630.38	
Committee on Publication	31.88	
Committee on Legislative Affairs	100.00	
Committee on Planning	106.49	
Peer Review (Ad Hoc under Council)	254.25	3,038.64
Total		$54,025.19

Exhibit C-2

Statement of Investments December 31, 1971

Description	*Bonds at Par*	*Cost*
Certificate of Deposit 4½% due 1/12/72	$37,000.00	$ 37,000.00
U. S. Treasury Bond 6¼% due 2/15/78	5,000.00	5,031.18
U. S. Treasury Bond 5¾% due 11/15/74	35,000.00	34,917.86
U. S. Treasury Bond 6% due 11/15/78	10,000.00	9,993.81
Pacific Gas and Electric 4½% due 6/1/90	5,000.00	5,000.00
Johns-Mansville 200 shares		5,582.34
Central and Southwest Corp. 200 shares		6,345.62
American Home Products Corp. 50 shares		3,006.88
Firestone Tire and Rubber Co. 140 shares		3,771.93
Burndy Corporation 124 shares		3,676.12
Interco-Common No Par 332 shares		9,997.20
J. P. Morgan and Co. 122 shares		5,161.93
International Tele. & Tele. Corp. 100 shares		6,986.25
F. W. Woolworth 140 shares		5,574.38
Bankamerica Corp. 200 shares		13,751.15
Texaco, Inc. 200 shares		6,937.26
		$162,733.91

Exhibit D-1

Missouri State Medical Association
Dues Receivable and Membership by Societies
December 31, 1971

	MEMBERSHIP				
Societies	*Junior*	*Active*	*Honor*	*Total*	*Unpaid Dues*
Andrew		3		3	
Audrain	2	15	1	18	
Barton		4	1	5	
Boone	25	153	4	182	$562.50
Buchanan	3	81	13	97	37.50
Butler-Wayne-Ripley	4	39	1	44	75.00
Callaway		15	1	16	
Cape Girardeau	7	53	2	62	
Chariton-Macon-Monroe-Randolph		16	5	21	
Clay	7	72	4	83	168.75
Clinton		4		4	
Cole	4	49	2	55	
Cooper		7		7	
Dallas-Hickory-Polk-Dade		9	1	10	
Dunklin	1	16	1	18	
Franklin-Gasconade-Warren		26		26	
Grand River	1	32	3	36	93.75
Greene	15	181	7	203	
Henry		7	1	8	
Howard		4	2	6	
Jackson	89	682	135	906	37.50
Jasper	8	60	6	74	18.75
Jefferson	3	14	2	19	112.50
Johnson		13	1	14	
Lafayette-Ray	3	20		23	
Lewis-Clark-Scotland		2		2	75.00
Marion-Ralls-Shelby	4	20	4	28	
Mid Missouri	1	28	1	30	
Miller		2		2	
Mineral Area	1	28	1	30	
Moniteau		3		3	
Montgomery		3	1	4	75.00
Morgan	1	4		5	
North Central	2	3	2	7	
Northwest Missouri		16		16	375.00

Exhibit D-2

Missouri State Medical Association Dues Receivable and Membership by Societies December 30, 1971

MEMBERSHIP

Societies	Junior	Active	Honor	Total	Unpaid Dues
Ozark	3	37	5	45	
Pemiscot		12	1	13	
Perry-St. Genevieve		8	1	9	
Pettis	3	24		27	
Pike		9		9	
Platte		6		6	$ 75.00
St. Charles-Lincoln	5	46		51	
St. Louis City	137	1,235	110	1,482	2,700.00
St. Louis County	37	419	50	506	56.25
Saline		10	2	12	
Semo	7	24	1	32	
South Central		15	2	17	
Webster		2		2	
West Central	4	26	6	36	
Totals	377	3,557	380	4,314	$4,462.50 (A)

(A) Delinquent dues of members at December 31, 1971 carried at the request ot local Societies.

FINANCIAL STATEMENT FOR THE YEAR 1971

LENNERTSON & COMPANY
Certified Public Accountants
ST. LOUIS, MISSOURI 63105

January 27, 1972

Missouri State Medical Foundation
515 East High Street
Jefferson City, Missouri 65101

Gentlemen:

The Balance Sheet of the Missouri State Medical Foundation, a nonprofit Missouri corporation, was examined for the year 1971. The Balance Sheet at December 31, 1971 is on a cash basis and the additions for the year are set forth in Exhibit A.

Recorded receipts for the year were traced in total into the bank account as deposits and paid checks were seen for the disbursements. A direct confirmation was received from the depositary in verification of the cash balances on deposit.

A summary of the loans to medical students follows:

Loans Receivable January 1, 1971	$327,681.20
Loans made during the year	54,725.00
Interest transferred to principal	272.50
Total	$382,678.70
Less Loan Repayments	14,834.33
Loans Receivable December 31, 1971	$367,844.37

Positive confirmations were mailed by the Foundation on 214 individual loans which we had received positive confirmation in 1970. On 24 new loans and 5 loans not previously confirmed we mailed positive confirmations with requests to return the confirmations direct to the auditors. Of the 243 loans, 227 were confirmed for a total of $348,820.77 out of total loans of $367,094.37. One additional loan was made Nov. 16, 1971 in the amount of $750.00 which has not been confirmed. Interest income on loans is recorded on a cash basis and the amount received in 1971 was $5,100.23. Accrued interest on outstanding loans at December 31, 1971 amounted to $28,356.31 and is not included in the loan balances in Exhibit A.

Interest received on the savings account and the certificate of deposit amounted to $1,713.17. The certificate of deposit due January 6, 1972 was renewed for six months and interest of $954.16 was received.

The Missouri State Medical Association paid expenses for the Foundation as follows:

State Registration Fee	$ 1.00
Professional Fees	1,300.00
Insurance Premium	1,706.38
Printing	56.16
Federal Income Tax	216.16
Total	$3,279.70

These amounts have not been recorded as receipts and disbursements on the records of the Foundation.

U. S. Treasury Department forms 990 and 990AR will be prepared for the year 1971 and are due for filing by May 15, 1972.

We have examined the Balance Sheet of Missouri State Medical Foundation as of December 31, 1971, prepared on the cash basis. The examination was made in accordance with generally accepted auditing standards and include such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. Since the Balance Sheet is on the cash basis, no opinion is expressed on the attached statement as accrued interest on loans of $28,356.31 and $954.16 of accrued interest on certificate of deposit is not shown. In addition no reserve for uncollectable loans has been provided. The Balance Sheet is prepared on a basis consistent with that of the preceding year.

Yours very truly,
Lennertson & Co.
Certified Public Accountants

Exhibit A

MISSOURI STATE MEDICAL FOUNDATION

Balance Sheet (Cash Basis), December 31, 1971

Assets

Cash in Checking Account	$ 33,208.08
Savings Account	19,748.16
Certificate of Deposit due Jan. 6, 1972	19,083.51
Loans Receivable from Medical Students	367,844.37
Total Assets	$439,884.12

Fund Reserve

Balance January 1, 1971		$393,330.38
Cash Additions for the year 1971		
Interest on Loans	$ 5,100.23	
Interest on Bank Deposits	1,713.17	
Contributions (see below)	2,987.84	
Assessment of Members—Active $10.00; Junior $5.00	36,752.50	
Total for year 1971		46,553.74
Total Reserve		$439,884.12

Contributions

Wilbur P. McDonald, M.D., St. Joseph, Mo.	$ 100.00
St. Joseph Boosters Club, St. Joseph, Mo.	200.00
Woman's Auxiliary—Jackson County, Kansas City, Mo.	150.00
Max S. Franklin, M.D., St. Louis, Mo.	100.00
William Shucart, M.D., Boston, Mass.	100.00
Paul R. Whitener, M.D., St. Louis, Mo.	250.00
South Central Counties Med. Society, West Plains, Mo.	100.00
Albert D. Cross, M.D., Trenton, Mo.	100.00
Long Drug Store, Boonville, Mo.	100.00
Boonville Medical Group, Boonville, Mo.	100.00
Miller's Medical Arts Pharmacy, Boonville, Mo.	100.00
Sub-total	$1,400.00
Contributions under $100 each	1,587.84
Total Contributions	$2,987.87

LEO H. POLLOCK, M.D.

Missouri Medicine in Review

FORTY YEARS AGO

Jefferson City had the distinction of entertaining the 50th Annual Meeting of the Missouri State Medical Association in 1909 and is now preparing to entertain the 75th Annual Session. The Association, in reality, is older than 75 years, having been organized in 1850. Meetings were held annually from 1850 through 1858, but they were suspended during the period of 1859 through 1866 during the agitation preceding and during the Civil War. The Association, therefore, is celebrating its 82nd birthday, but its 75th Annual Meeting this year.

Plans for the Jefferson City session on May 23-26 are well under way. Dr. Edward H. Cary, Dallas, who will be installed as President of the American Medical Association at the New Orleans meeting, will deliver an address. In addition to an excellent scientific program and an address by Gov. Henry S. Caulfield, Jefferson City offers many inducements. The Missouri Hotel (150 rooms) offers rates of $3.00 for a corner room with one double bed and shower to $8.00 for a two-room suite (parlor and bedroom).

Dr. Jess E. Douglass, Webb City, has been elected President of Jasper County Medical Society for 1932. He has been superintendent of the Jasper County Tuberculosis Hospital for the past four years.

TWENTY-FIVE YEARS AGO

The Annual Session of the Missouri State Medical Association will convene on March 30-April 2 in Kansas City. The Jackson County Medical Society will host a smoker and entertainment at the Hotel President. The annual banquet in honor of Past-Presidents will be held on Monday evening when the President and President-Elect will speak and George F. Lull, M.D., Secretary of the American Medical Association, will deliver the principal address.

Dr. Rex L. Diveley, Kansas City, was installed as president of the American Academy of Orthopedic Surgeons at a meeting in Chicago on January 25-30.

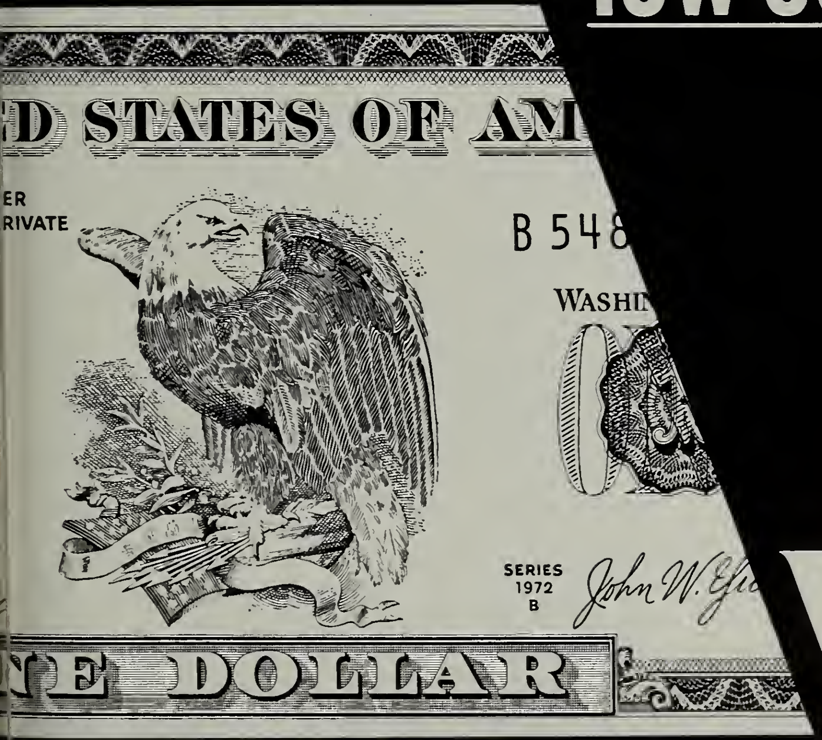
Members of the Barton, Bates, Cass, Cedar, Dade, Dallas, Henry, Hickory, Polk, St. Clair and Vernon County Medical Societies attended a dinner meeting at the Hotel Mitchell in Nevada on January 30. This is the first meeting of a planned series of dinner meetings for the medical societies of this area. Tentative plans were made to hold the next meeting in Butler.

TEN YEARS AGO

Health insurance benefit payments by all insuring organizations averaged an estimated $17.3 million a day during 1961, the Health Insurance Institute reported recently. Health insurance benefit payments during 1961 by all insurers were estimated by the Institute at $6.3 billion, an increase of 11% over the $5,688,000 paid during 1960. The Institute said that insurance companies accounted for $3.4 billion of the 1961 benefits while other insurers, including Blue Cross-Blue Shield and the independent plans, paid out some $2.9 billion. In 1960, insurance companies paid $3,069,000 in benefits while other insuring groups paid $2,619,000.

The regular meeting of the West Central Missouri Medical Society was held at the Nevada Country Club on Dec. 14, 1961. The meeting for the Christmas season was called to order by President Robert Magee, who introduced Father William Beachy, chaplain at St. Luke's Hospital in Kansas City. Father Beach is an M.D., had a residency in internal medicine and is Board Certified in the field. He was associated with Dr. Max Berry in Kansas City and later entered the ministry. He presented a timely subject in which he, as a physician, sees the great possibilities of the clergy and the physician working together for the good of the patient. He was an excellent speaker and his talk was enjoyed by all present.

Something new
in ampicillin
therapy:
low cost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Versapen®-K
POTASSIUM HETACILLIN
the ampicillin derivative

Each capsule contains potassium hetacillin equivalent to
225 mg. or 450 mg. ampicillin.

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MISSOURI STATE MEDICAL ASSOCIATION

515 East High St., P. O. Box 1028, Jefferson City, Mo. 65101
Telephone: Area Code 314, Number 636-5151

OFFICERS

President, Gerald L. Miller, M.D., Kansas City
President-Elect, Walter T. Gunn, M.D., St. Louis
Vice-President, William W. Gist, M.D., Kansas City
Vice-President, Raymond A. Ritter, M.D., Cape Girardeau
Vice-President, Joseph L. Johnston, M.D., Springfield
Secretary, John I. Matthews, M.D., Jefferson City
Treasurer, Charles R. Gulick, M.D., St. Louis
Speaker, E. D. Imes, M.D., Maryville
Vice-Speaker, Robert A. Slickman, M.D., Kansas City

DELEGATES TO THE AMA

Stanley S. Peterson, M.D., Springfield
James C. Sisk, M.D., St. Louis County, *Alternate*
J. Loren Washburn, M.D., Versailles
Rae W. Froelich, M.D., Lebanon, *Alternate*
Hector W. Benoit, Jr., M.D., Kansas City
Hugh E. Stephenson, Jr., M.D., Columbia, *Alternate*
Arthur W. Neilson, M.D., St. Louis
Robert W. Kelley, M.D., St. Louis, *Alternate*

COUNCILORS

9th District, E. A. Stricker, M.D., St. James, *Chairman*
5th District, James C. Cope, M.D., Columbia, *Vice-Chairman*

1st District, John N. Martin, M.D., St. Joseph
2nd District, Lysle M. Bach, M.D., Hannibal
3rd District, Max S. Franklin, M.D., St. Louis
4th District, Louis P. Hetlage, M.D., Troy
6th District, William D. Bradshaw, M.D., Clinton
7th District, R. Allen Chandler, M.D., Kansas City
8th District, Howard J. McAlhany, M.D., Springfield
10th District, Eugene T. Hansbrough, M.D., Poplar Bluff
Joseph L. Fisher, M.D., St. Joseph, *Immediate Past-President*

EXECUTIVE OFFICE STAFF

Executive Secretary, Raymond McIntyre
Executive Assistant, Thomas P. Fox
Executive Assistant, Bob Carroll
Field Secretary, Royal O. Cooper

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Dr. Gunn To Become MSMA President

Walter T. Gunn, M.D., St. Louis Family Practitioner, will become the president of the Missouri State Medical Association on Saturday night, April 8, at the Muehlebach Hotel in Kansas City when he receives the gavel of office from President Gerald L. Miller, M.D., Kansas City Obstetrician and Gynecologist.

The president-elect of the Missouri State Medical Association was born in Waterloo, Iowa, but when he was two years of age, the family moved to St. Louis. He is a graduate of the St. Louis University School of Medicine.

Dr. Gunn served three and one-half years in the Army Medical Corps in World War II and was commander of the 630th Medical Clearing Company.

Dr. Gunn has been president of the St. Louis Medical Society and has been treasurer and chairman of the Council of the State Medical Association. He is a past president of both the St. Louis and the Missouri Academy of Family Practice. He has served as a president of the General Practice Section of the Southern Medical Association.

A past lieutenant governor of Kiwanis, Division VII, Dr. Gunn is Post Surgeon of the Lester Schleuter, Post 300, American Legion, a member of the VFW and a fourth degree Knight of Columbus.

The inauguration of Dr. Gunn will be one of the many highlights of the 114th Annual Session Banquet on Saturday night, April 8. Also to be honored at the Banquet will be Past Presidents of the Association and new members of the 50-Year Club.

A new feature at this year's Annual Banquet will be the presentation of the awards to the winners in the Missouri State Medical Association news competition for 1971. Awards will be presented to two newspapers, a radio station and a television station at the Banquet.

GERALD L. MILLER, M.D.
President

WALTER T. GUNN, M.D.
President-Elect

The entertainment promises to be outstanding and will feature a performance by the Singing Doctors from Greene County who have "left audiences laughing" after all of their appearances.

And at the conclusion of the formal program there will be dancing to the music of the outstanding Warren Durrett Orchestra of Kansas City.

Tickets for the Annual Banquet will be on sale all during the meeting at the MSMA registration desk in the Royal Hall at the Muehlebach Hotel.

The scientific session being held as a part of the 114th Annual Meeting of MSMA will offer physicians a wide choice of programs on a variety of topics. A number of specialty organizations are sponsoring continuing education programs and some of them are holding annual meetings along with the MSMA session.

For the first time in the history of the Missouri State Medical Association there is a special place in both the preliminary and the final annual session programs listing scientific sessions by specialties to make it easier for physicians to choose the programs which they plan to attend.

MSMA
News

Scientific sessions are scheduled all day both Friday and Saturday, April 7 and 8.

The MSMA House of Delegates will meet at 1:30 p.m. on Thursday, April 6; at 4 p.m. on Friday, April 7; and at 7:30 a.m. for breakfast on Sunday, April 9.

Dr. Wendell Scott on Cancer Council

Wendell G. Scott, M.D., St. Louis Radiologist, has been named as one of the physician members of the National Advisory Cancer Council. The board will make recommendations to the director of the National Cancer Institute on expanding research and other programs to combat cancer.

Dr. Scott is the second Missouri State Medical Association member in recent months to be named to a national board. Richard A. Sutter, M.D., St. Louis, was recently named to the National Advisory Committee on Occupational Safety and Health.

Blue Cross-Shield Bill Is Advanced

A legislative proposal which appeared dead in mid-February suddenly came to life in mid-March. The measure, House Bill 583, calls for the regulation of Blue Cross and Blue Shield by the Missouri Insurance Department and calls for a premium tax on subscribers.

The House Insurance Committee did not hold a hearing on the bill until the first of March but then after hearing proponents one week and opponents the next, the committee voted the bill out "DO PASS" with two amendments. One amendment removed union and industry sponsored health and welfare funds from the regulations and the second brought the premium tax more in line with that charged insurance companies in the health insurance field. But the premium tax could cost $1 million or more, even under the committee amendment, and it would be charge against non-group subscribers including senior citizens who could least afford to pay more for health protection.

On March 13 the House Rules Committee voted to place the bill on a special calendar which would put it ahead of most other bills and give it a chance for passage in the six weeks remaining in the session. The move to keep the measure on the special calendar was scheduled to be challenged on March 20, with a vote on the issue likely later that week.

The Missouri State Medical Association House of Delegates in the past has put the Association on record against regulation of Blue Cross and Blue Shield and against a premium tax. Thus, House Bill 583 is being opposed by MSMA.

The bill was one of the measures recommended by Governor Warren E. Hearnes in his message to the General Assembly in January.

Senate Bill 436 and House Bill 1497 both of which would lower the blood alcohol level in the blood to determine intoxication from .15 to .10 were perfected in their respective houses on March 14 and appeared in good shape to be passed. They have received strong support from MSMA.

Four bills of medical interest which have passed the House have been approved by the Senate Public Health Committee and are on the Senate third reading calendar. They are HB 1255 which would add rubella and rubeola vaccines to the list of mandatory inoculation for school attendance; HB 1261 which would allow the State Cancer Hospital to take full pay patients as priority is given to the indigent and then to those able to pay for part of care; HB 1262 which would allow county hospitals to issue revenue bonds for construction and equipment; and HB 1428 which would increase membership of state hospital advisory council to ten to meet federal requirements.

HB 1325 which would require the state to pay a third of the amount by which costs exceed receipts of city, county, district or non-profit publicly supported hospitals was placed on the Special Order of Business Calendar in the House.

SB 508 which would license, regulate and set standards for private and publicly owned ambulances is well down on the Senate Perfection Calendar and its fate is considered in doubt.

HB 1032 which would provide a $4,000 per year subsidy for Missouri students attending the two private medical or osteopathic schools is still far down on the House perfection calendar and "in trouble."

Also well down on the House Perfection Calendar are HB 1093 which would allow chiropractors to use physiotherapy and HB 1053 which would change the statute of limitations in malpractice cases to five years from the act in all cases except those involving foreign objects and two years from discovery in foreign object cases.

DON'T MISS
THE 114th ANNUAL
MSMA SESSION
April 6-9
Kansas City

Plan Program For November Cruise on Ship

Plans are nearly complete for the scientific, continuing education program to be held aboard the Cruise Ship M/S Boheme, November 11-18, under sponsorship of the Missouri State Medical Association.

Brochures outlining plans for the cruise were to be mailed to MSMA members late in March.

A special exhibit booth, No. 21 at the MSMA Annual Session, will feature information concerning the cruise and the continuing education program. All physicians are invited to visit the booth for additional information.

The tour will include jet air transportation from both St. Louis and Kansas City to Miami for ship boarding.

A Night to Remember!

The Honor of the Presence of

All Members of the MSMA

And Their Wives

Is Requested at the

Annual Presidents' Banquet

In Honor of Past-Presidents

Of The Missouri State Medical Association

on

Saturday, April 8, 1972

in the

Ballroom of the Hotel Muehlebach

The Banquet Will Feature

Entertainment by the

Greene County "Singing Doctors"

And Dancing to the Music of

Warren Durrett and His 17-Piece Orchestra

Cocktails at 6:30 p.m.   Dinner at 7:15 p.m. $12.50 Per Person

A Meeting to Remember!

The MSMA

114th ANNUAL SESSION

April 6-9, 1972

Muehlebach Hotel

Kansas City

Program†

114th Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

Muehlebach Hotel, Kansas City **April 6-9, 1972**

Thursday, April 6

11:00 AM Registration of Delegates.
1:30 PM House of Delegates Meeting, opening session.
3:30 PM Reference Committee Meetings.

Friday, April 7

8:00 AM Registration.
9:00 AM General Session. *Peer Review.*
Moderator: Hector W. Benoit, Jr., M.D., Kansas City.
(Participants to be announced.)
Sponsored by the Health Care Foundation of Missouri.
10:30 AM Intermission to view exhibits.
*11:00 AM *Abdominal Trauma*
Moderator: Andrew McCanse, M.D., Kansas City.
Panel Participants:
  John A. Collins, M.D., St. Louis
  W. Kendall McNabney, M.D., Kansas City.
Sponsored by Missouri State Surgical Society.
*11:00 AM *Symposium on Cardiovascular Disease.*
Moderator: E. K. Burk, M.D., North Kansas City
  Understanding Basic Management of Acute Myocardial Infarction, Robert Paine, M.D., Chief of the Department of Medicine, St. Luke's Hospital, St. Louis.
  Understanding the Management of Heart Failure, Ben D. McCallister, M.D., University of Missouri-Kansas City.
Sponsored by the Missouri Society of Internal Medicine and the Missouri Chapter, American College of Physicians.
*11:00 AM *Symposium on Gastrointestinal Disease.*
Moderator: Alfred D. Biggs, Jr., M.D., Kansas City.
  New Diagnostic Techniques in Gastrointestinal Disease, Burnell Landers, M.D., University of Missouri-Kansas City.
  Controversies About Duodenal Ulcer.
    Thomas P. O'Farrell, M.D. and Robert D. Wilber, M.D., University of Kansas School of Medicine and University of Missouri-Kansas City.
Sponsored by the Missouri Society of Internal Medicine and the Missouri Chapter, American College of Physicians.
*11:00 AM *Perinatal Mortality Conference.*
Moderator: William C. Mixson, M.D., Kansas City.
  Panel Participants:
    Richard A. Guthrie, M.D., Columbia.
    Robert C. Rosan, M.D., St. Louis.
    Robert L. Newman, M.D., Kansas City.
Sponsored by the Missouri Obstetrical and Gynecological Society.
*11:00 AM *Hyperactive Child—Diagnosis and Treatment.*
Moderator: Roy E. Wilson, M.D., Springfield.
(Participants to be announced.)
Sponsored by Missouri Academy of Psychiatry.
12:30 PM Missouri University Alumni Luncheon.
Missouri Obstetrical and Gynecological Society Luncheon.
  James P. Youngblood, M.D., Kansas City, will present the Maternal Mortality Report.
* 2:00 PM *Abdominal Trauma.* (Continued)
Moderator: Lawrence Evans, M.D., Kansas City.
  Panel Participants:
    John Ochsner, M.D., New Orleans, La.
    Franklin L. Mitchell, M.D., Columbia.
Sponsored by Missouri State Surgical Society.

---

* Concurrent Sessions.

† Program approved for 36 elective hours of continuing education by the American Academy of Family Practice.

[*] 2:00 PM *Symposium on Endocrinology.*

Moderator: J. H. Morris, Jr., M.D., Kansas City.

Thyroid Tests—1971, Garrett A. Hagen, M.D., Veterans Administration Hospital, St. Louis.

Evidence that Insulin Insufficiency is Related to the Complications of Diabetes, Charles Kilo, M.D., Washington University.

Sponsored by the Missouri Society of Internal Medicine and the Missouri Chapter, American College of Physicians.

[*] 2:00 PM *Symposium on Neurology.*

Moderator: James W. Neumann, M.D., Kansas City

Differential Diagnosis of Coma, Violet B. Matovich, M.D., Chief of Neurology, VA Hospital, Kansas City.

Evaluation and Management of Headache, Fred D. Fowler, M.D., University of Missouri-Kansas City.

Sponsored by the Missouri Society of Internal Medicine and the Missouri Chapter, American College of Physicians.

2:00 PM *The Iowa 500: Mania, Depression, Schizophrenia and Suicide,* George Winokur, M.D., Head of the Department of Psychiatry, State University of Iowa School of Medicine, Iowa City.

Moderator: Edwin D. Wolfgram, M.D., St. Louis.

Sponsored by the Missouri Psychiatric Association.

[*] 2:00 PM *Symposium on Asthma, Diagnosis and Treatment.*

Moderator: Orval R. Withers, M.D., Kansas City, Kan.

Panel Participants:

- Raymond G. Slavin, M.D., St. Louis University School of Medicine, St. Louis.
- Elliott F. Ellis, Chief, Pediatric Allergy Department, National Jewish Hospital, Denver.
- Robert G. Lovell, M.D., University of Michigan Medical Center, Ann Arbor.
- Lloyd A. Hollinger, M.D., Medical Director, Pulmonary Laboratory, Baptist Memorial Hospital, Kansas City.
- Orval R. Withers, M.D., Clinical Professor of Medicine Emeritus, University of Kansas School of Medicine, Kansas City, Kan.
- Ralph Hale, M.D., Immediate Past-President, American College of Allergists, Wichita, Kan.

Sponsored by Missouri State Allergy Association.

3:30 PM Intermission to view exhibits.

4:00 PM House of Delegates, second session.

5:30 PM Missouri State Medical Foundation Annual Meeting.

5:30 PM Missouri State Allergy Association Dinner Meeting.

6:00 PM Reference Committee Meetings.

6:30 PM Dinner Meetings:

- Missouri Academy of Psychiatry
- Missouri Radiological Society
- Missouri Federation of Urologists
- Missouri Psychiatric Association—Guest Speaker, Ewald Busse, M.D., President, American Psychiatric Association.
- Missouri State Surgical Society—Top of the Tower, *Surgical Intensive Care,* John Collins, M.D., St. Louis.

Saturday, April 8

8:00 AM Registration.

9:00 AM *Comparative Costs of Medical Care.*

Moderator: Lawrence W. O'Neal, M.D., St. Louis.

Participants:

- *The Patients' Costs of Care, Direct and Indirect,* Mr. Paul Sanders, Consultant on Neighborhood Health Centers, ARCH, St. Louis.
- *Contracting, Negotiating, and Licensing Delivers the Dollars to the High Cost Systems and Retards Ambulatory Care Center Growths,* Dr. O'Neal.
- *If Ambulatory Centers Develop, Hospital Costs Will Rise,* C. O. Vermillion, M.D., St. Louis.
- *The Difference in Cost of the Same Care Described in Terms of Results,* Richard Danis, M.D., St. Louis.

10:30 AM Intermission to view exhibits.

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[*] Concurrent Sessions.

*11:00 AM *Pulmonary Problems in Surgical Patients,* Gerald F. Tuohy, M.D., St. Luke's Hospital, Kansas City.
Coronary By-Pass Operations, William A. Reed, M.D., St. Luke's Hospital, Kansas City.
Moderator: Hugh E. Stephenson, M.D., Columbia.
Sponsored by Missouri State Surgical Society.

*11:00 AM *Symposium on Infectious Diseases.*
Moderator: Robert S. Mosser, M.D., Kansas City
Mycoplasma Infections: Recognition and Treatment, Chien Liu, M.D., Head of the Section of Infectious Diseases, University of Kansas Medical Center.
Infectious Mono, E.B. Virus and Neoplasma, Douglas W. Voth, M.D., Section of Infectious Diseases, University of Kansas Medical Center.
Sponsored by Missouri Society of Internal Medicine and Missouri Chapter, American College of Physicians.

11:00 AM *Pediatric Urinary Tract Infections—Diagnostic and Therapeutic Implications.*
Moderator: Richard D. Blim, M.D., Kansas City.
Jointly sponsored by
Missouri Federation of Urologists, Missouri Radiological Society and Missouri Chapter, American Academy of Pediatrics.
Panel Participants:
Donald R. Germann, M.D., Pediatric Radiologist, Kansas City.
Stanley Hellerstein, M.D., Pediatrician, Kansas City.
Thomas M. Holder, M.D., Pediatric Surgeon, Kansas City, Kan.

*11:00 AM *Symposium on Carotid Occlusive Disease,* Thomas P. Kearns, M.D., Mayo Clinic, Rochester, Minn.
Moderator: Robert C. Drews, M.D., St. Louis.
(Other Participants to be announced.)
Sponsored by Missouri Ophthalmological Society, Inc.

12:30 PM MSMA General Luncheon—The Honorable Durward G. Hall, M.D., Springfield, Member of the U.S. Congress.
Fifty-Year Club Luncheon.
Missouri Ophthalmological Society, Inc., Luncheon.
Missouri Association of Neurological Surgeons Luncheon.

* 2:30 PM *Health Maintenance Organizations (HMO's).*
Moderator: William D. Hoadley, M.D., Kansas City.
Participants:
Research, Development and Operation of HMO, C. Stanley Custer, M.D., Marshfield Clinic, Marshfield, Wis.
Federal Viewpoint, Holman R. Wherritt, M.D., Regional Health Director, Department of HEW, Kansas City.

* 2:30 PM *The Retinopathy of Sarcoidosis,* Thomas P. Kearns, M.D., Mayo Clinic, Rochester, Minn.
Moderator: Robert C. Drews, M.D., St. Louis.
Sponsored by Missouri Ophthalmological Society, Inc.

2:30 PM *Skin Changes in Pregnancy,* Guinter Kahn, M.D., Denver, Colo.
Moderator: Donald L. Fuhrman, M.D., Kansas City
Sponsored by Missouri Dermatological Society, Inc.

4:00 PM Intermission to view exhibits.
5:00 PM St. Louis University Medical Alumni Cocktail Party.
5:00 PM Washington University Medical Alumni Cocktail Party.
6:00 PM Missouri Dermatological Society, Inc., Dinner.
6:30 PM Social Hour for those Attending Banquet.
7:15 PM Annual Banquet in Honor of Past-Presidents.

Sunday, April 9

7:30 AM House of Delegates, breakfast and final session.

MEETINGS TO BE HELD IN CONJUNCTION WITH THE MSMA 114TH ANNUAL SESSION

(**Please Note:** Although the following meetings are a part of the MSMA Annual Session program, they are printed separately for clarity. All members of the MSMA are invited to attend the following meetings.)

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* Concurrent Sessions.

Annual Meeting

MISSOURI STATE ALLERGY ASSOCIATION

Friday, April 7, 1972

10:30 AM *Clinical Asthma.* Room 362.
Robert E. Bolinske, M.D., St. Louis
Clement J. Sullivan, M.D., St. Louis.
Mr. Robert John Dockhorn, Shawnee Mission, Kan.
Pat A. Barelli, M.D., Kansas City.
12 NOON Adjourn for Missouri State Medical Association Luncheon.
2:00 PM *Symposium on Asthma.* Burgundy Room.
4:00 PM Business Meeting (If not completed at 10:30 AM). Room 362.
5:30 PM Cocktails, Dinner. (No scientific program.) Please bring your wives. Room 362.

Annual Meeting

MISSOURI DERMATOLOGICAL SOCIETY, INC.

Saturday, Sunday, April 8-9, 1972

This annual meeting will be held in conjunction with the Missouri State Medical Association Annual Session. (Saturday session—Burgundy Room, Muehlebach Hotel. Sunday session—Kansas City General Hospital.)

MISSOURI SOCIETY OF PATHOLOGY*

Program on Medical Genetics

Saturday, April 8, 1972

8:00 AM Registration—Towers 21-22. Registration Fee, $10.00.
9:00 AM *Introduction and Molecular Biology,* Raymond J. Caffrey, M.D., Pathologist, Research Hospital, Kansas City.
9:30 AM *Classical Genetics (Mendelism),* Harold E. Cross, M.D., Ph.D., Resident and Fellow in Ophthalmology, Wilmer Institute, Johns Hopkins Hospital.
10:15 AM Coffee Break.
10:30 AM *Recessive Disease,* R. Rodney Howell, M.D., Associate Professor of Pediatrics, Johns Hopkins Hospital.
11:15 AM *Dominant and Multifactorial Disease,* Harold E. Cross, M.D.
12:00 NOON Lunch.
1:30 PM *Chromosomal Disease,* Raymond J. Caffrey, M.D.
2:15 PM *Laboratory Aspects of Genetic Disease Including Use of Amniocentesis,* R. Rodney Howell, M.D.
3:00 PM Coffee Break.
3:15 PM *Laboratory Aspects* . . . (Continued).
3:45 PM *Genetic Counseling and Future of Medical Genetics,* Harold E. Cross, M.D.
4:30 PM Panel Discussion.

First Annual Convention

MISSOURI PSYCHIATRIC ASSOCIATION

Friday, April 7

Lido Room

1:30 to 2:00 PM Short paper of primary interest to Psychiatrists.
2:00 to 3:30 PM *Suicide and Depression,* George Winokur, M.D., Department of Psychiatry, State University of Iowa School of Medicine.
This program of general interest to all physicians.
3:30 to 4:00 PM Short paper of primary interest to Psychiatrists.
4:00 to 4:30 PM Business Meeting.
All sessions to be held in the Lido Room.
6:00 PM Social Hour and Banquet. (Room to be assigned.)
Guest Speaker: Ewald Busse, M.D., President, American Psychiatric Association.

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* In cooperation with the Missouri State Medical Association and supported in part by the National Foundation—March of Dimes.

Registrants who are members of the Missouri Society of Pathology, as well as non-members, are invited to register for the MSMA Meeting without charge at the MSMA Registration Desk in the Royal Hall.

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our experience.

An orally active hypoglycemic agent principally indicated in relatively mild, adult, maturity-onset, non-ketotic diabetes; also, as a supplement to insulin therapy in selected diabetic patients, it may effect a stabilization of labile diabetes and reduce insulin requirements. Certain patients intolerant to chlorpropamide therapy at usual therapeutic doses have subsequently been successfully managed with Orinase (tolbutamide).

Use in mild asymptomatic diabetic patients with abnormal glucose tolerance tests not responding to diet therapy may result in improvement of the glucose tolerance test.

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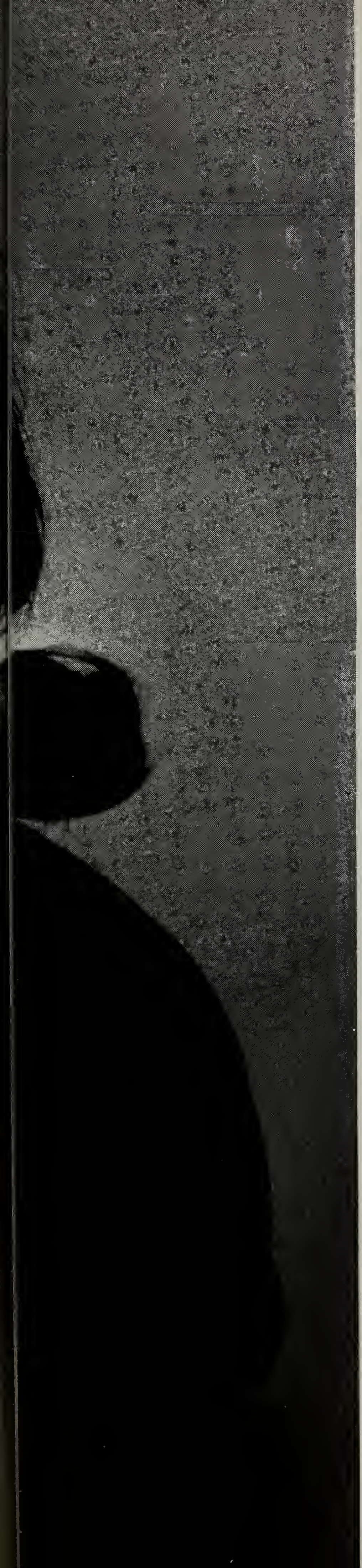
Pregnancy Warning: The safety and usefulness of Orinase during pregnancy has not been established either from the standpoint of the mother or the fetus. Animal studies have demonstrated feticidal and teratogenic effects of doses of 1,000-2,500 mg./kg./day, but application to human subjects unknown. Therefore, Orinase is not recommended for the pregnant diabetic, and when administering Orinase to women of childbearing age, these facts should be borne in mind.

Precautions: Diagnostic and therapeutic measures necessa for optimal control with insulin are also necessary with Orinas The patient on Orinase must be fully instructed: about th nature of his disease; how to prevent and detect complication how to control his condition; not to neglect dietary restriction develop a careless attitude or disregard instructions relative body weight, exercise, personal hygiene, and avoidance of i fection; how to recognize and counteract impending hypogl cemia; how and when to test for glycosuria and ketonuria; ho to use insulin; and to report to the physician immediately if does not feel as well as usual.

Caution, very close observation, and careful adjustment dose are necessary when: insulin is withdrawn during the tri period in order to avoid ketosis, acidosis, and coma; thiazid diuretics are administered which may result in aggravation diabetic state and increased tolbutamide requirement, temp rary loss of control, or even secondary failure; treating patien with impaired hepatic and/or renal function and debilitated, m nourished, or semistarved patients in order to avoid severe hyp glycemia which may require corrective therapy over sever days; and treating patients with severe trauma, infection, or sur gical procedures where temporary return to insulin or additio of insulin may be necessary. Response to tolbutamide is dimi ished in patients receiving therapy with beta blocking agent

As some diabetics are not suitable candidates, it is essent that the physician familiarize himself with the indications, lim of application, and selection of patients for therapy.

Patients must be under continuous medical supervision, a during the initial test period should communicate with the phys



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- no reported increase of intraocular pressure.
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In fact, there are no known contraindications in recommended oral doses other than it should not be given in the presence of frank arterial bleeding or immediately postpartum.

Although not all clinicians agree on the value of vasodilators in vascular disease, several investigators[1-4] have reported favorably on the effects of isoxsuprine. Effects have been demonstrated both by objective measurement[2,4] and observation of clinical improvement.[1,3] Indications: Cerebrovascular insufficiency, arteriosclerosis obliterans, diabetic vascular diseases, thromboangiitis obliterans (Buerger's disease), Raynaud's disease, postphlebitic conditions, acroparesthesia, frostbite syndrome and ulcers of the extremities (arteriosclerotic, diabetic, thrombotic). Composition: VASODĪLAN tablets, isoxsuprine HCl 10 mg. and 20 mg. Dosage: Oral—10 to 20 mg. t.i.d. or q.i.d. Contraindications and Cautions: There are no known contraindications to recommended oral dosage. Do not give immediately postpartum or in the presence of arterial bleeding. Side Effects: Occasional palpitation and dizziness can usually be controlled by dosage reduction. Complete details available in product brochure from Mead Johnson Laboratories. References: 1. Clarkson, I. S., and LePere, D. M.: Angiology *11*:190-192 (June) 1960. 2. Horton, G. E., and Johnson, P. C., Jr.: Angiology *15*:70-74 (Feb.) 1964. 3. Dhrymiotis, A. D., and Whittier, J. R.: Curr. Ther. Res. *4*:124-128 (April) 1962. 4. Whittier, J. R.: Angiology *15*:82-87 (Feb.) 1964.

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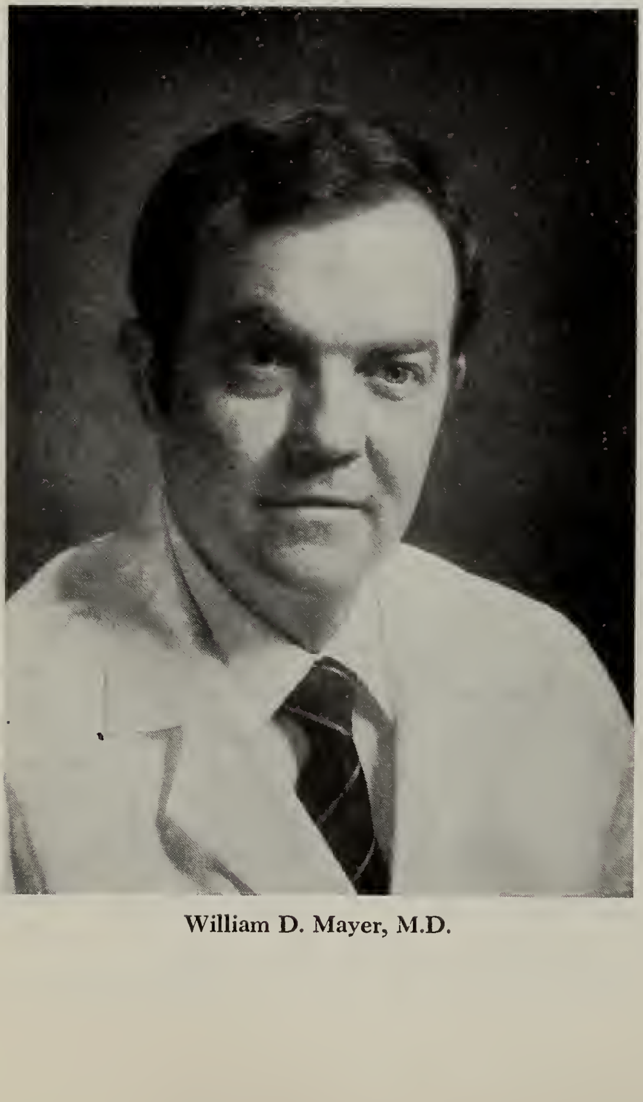
The University Hospital— A Dilemma of the 70s

By

WILLIAM D. MAYER, M.D.

Director, University of Missouri-Columbia Medical Center
Dean, School of Medicine

The University of Missouri-Columbia Medical Center, as it is presently constituted, came into being in 1956 with the opening of the four-year medical school in Columbia. After much discussion in the late 1940s and early 1950s, a decision was made to reinstitute a four-year program leading to the M.D. degree within the purview of the Board of Curators of the University of Missouri and supported by the state of Missouri. A wise decision was made to place the program in Columbia on the campus of the major state-supported institution of higher education—the University of Missouri-Columbia. In this manner, the "new" School of Medicine was able to gain the sustenance it needed for its growth and development as an academic center.



William D. Mayer, M.D.

In order for the Center to have a needed population base of patients to carry out its extensive educational programs for medical students, nursing students, allied health students, graduate students in the health sciences and the training of interns and residents as future medical practitioners in the state of Missouri, a University Hospital was built in Columbia as part of the Medical Center complex. This University Hospital was built at a time when throughout the nation, it was assumed that most hospitals associated with medical schools would, as a part of their activities, assume the responsibility for a large part of indigent care in their environs. In these university hospitals, free care was provided for those who could not afford it and these patients were active participants in the educational programs of the university centers. In some instances, the cost of this care was paid by the counties or cities from which the patients came and, in others, it was assumed by the state or the university.

The state of Missouri wisely elected to fund this indigent care component via state appropriations through the University budget. This was particularly wise in this instance because, as opposed to Kansas City or St. Louis, the indigent patients did not come primarily from one city or county but were widely-scattered from all counties throughout the state. Thus, the decision was made to incorporate indigent care as an integral part of the total budget of the Medical Center. This was a pivotal decision for with the inadequacies of county support for indigent care, particularly in the rural counties of the state, there would not have been an adequate base of financial support for the University Hospital. Hence, there would not have been an adequate patient population base to carry out the multiple health educational programs of the Center.

In the first decade of the Center (during the late 1950s and early 1960s), an appropriate balance seemed to exist. A significant population of Missourians who needed health care, but

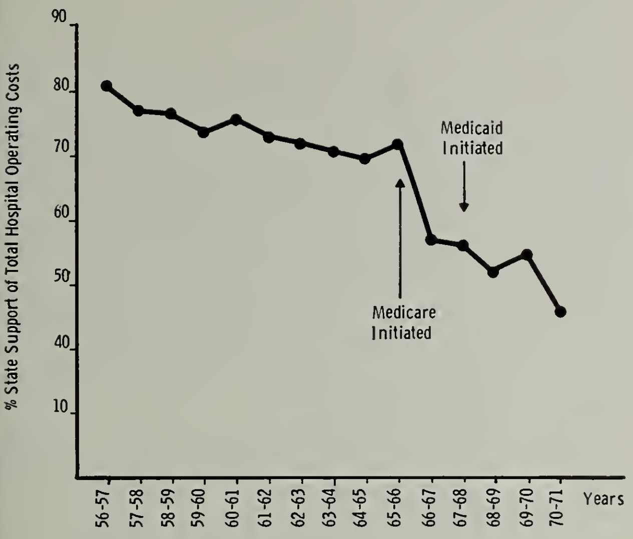


Fig. 1

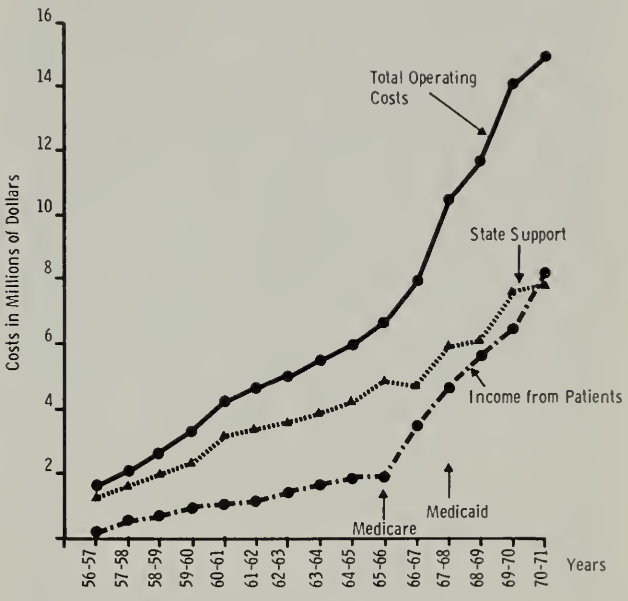


Fig. 2

could not afford it, received that care in the University Hospital. It was paid for by the state through appropriations to the University. At the same time, an adequate patient-care base existed to educate future physicians, nurses and other needed health personnel. In the late 1950s and early 1960s, between 75% and 80% of the costs of operating the University Hospital were borne by the state through appropriations for the care of the indigent. The remaining 20% to 25% was paid by those patients who could afford to pay.

During the late 1960s, however, a dramatic increase in health care costs throughout the entire country started to occur. Multiple factors contributed to this: unionization and a catch-up of previously deplorable low wage scales for the employees in the health industry; increased demands for health care; shortages of health personnel created by these demands; increasing technology and quality of health care with associated increased costs; a financing system through insurance carriers and other third party payors which placed emphasis on hospitalization, the most expensive part of health care; and other reasons.

Health care costs throughout the entire country have continued to rise at a rate far greater than the rest of the economy, with no obvious solution in sight in the immediate future. By 1968-1969, total national health care expenditures had risen to $60.3 billion or nearly 7% of the gross national product (GNP). Currently, just three years later, expenditures are estimated to be in excess of $78 billion or 7.4% of the GNP. The state of Missouri and the University Hospital have not been immune to these changes. In fact, the rise in costs in the University Hospital has paralleled almost exactly the rise in comparable institutions throughout the country.

The advent of Medicare and Medicaid in 1966 and 1967 alleviated part of the problem by providing financial support for the care of some persons (the elderly and those qualified for welfare) who previously could not pay for their care. At the University Hospital in 1966-1967, the state's contribution to indigent care through the University budget was reduced to 57% (Fig. 1) of the operating costs of the University Hospital (from 72% in 1965-1966). Further percentage reductions occurred in 1967-1968 and by 1968-1969 had reached 52% with full implementation of Medicare and Medicaid. However, it has stabilized at approximately the 50% level since that time, for the rise in health care costs itself has produced a rapidly expanding group of medically indigent—those not sufficiently poor to be eligible for the Medicaid Program, but able to pay for only a small portion of their care.

Although there have been major reductions over the past decade in the percentage of the state's commitment to the costs of operating the University Hospital, the overall cost to the state has risen as a result of the rapidly rising health care costs (Fig. 2). In 1971-1972, there will be approximately $7.7 million in state funds within the total operating costs of the Hospital of slightly over $15 million.

It is likely that in the immediate future, the costs of health care will continue to rise more rapidly than the remainder of the economy and more rapidly than the costs of education. Concerns have developed within the Medical Center and the University about the implications of this to other programs within the Medical Center and the University. For example, in 1970-1971, there was no increase in the operating dollars provided by the state to the University over the previous fiscal year. During this same period, the costs of operating the University Hospital continued to rise at the national rate. In order to maintain a level of care acceptable as a model for training future physicians, nurses and other health personnel, beds were closed, personnel laid off and services reduced by almost a $1 million below the level of the previous year. Even more dramatic was a reduction in the budget of the School of Medicine by $450,000 over the previous year. This latter action, in effect, represented the use of the University's educational dollars to pay for medical care of the medically indigent of the state of Missouri. Obviously, a continuation of this latter approach is unacceptable in that it can only mean the deterioration of existing academic programs or a significant cutback in the training of health care personnel at a time when "The United States today faces only one serious manpower shortage, and that is in health care personnel." (Report of the Carnegie Commission on Higher Education, *Higher Education and the Nation's Health*, pg. 2.)

The Dilemma

Thus, there is a major dilemma which faces the University of Missouri-Columbia Medical Center and almost every other university medical center in the country. Simply stated it is: *How do we maintain an adequate patient population base to carry out the education of critically needed health professionals while, at the same time, achieve fiscal stability in the face of rapidly rising health care costs?* Obviously, what constitutes an adequate patient population base depends upon the kinds and numbers of health professionals needed. These determinations are a part of the continuing review of the School of Medicine and the Hospital. It is unlikely, however, that the overall need for health professionals will abate in the near future, and as the greatest single focus for the education of health professionals for the state of Missouri, it is critical that solutions to this dilemma are found.

Before moving on to a description of the means by which solutions are being sought for this dilemma, however, the assumptions underlying the search for solutions should be stated. These are (1) that the state of Missouri and its citizens are interested in expanding the numbers of critically needed health care personnel in the state; (2) that the state of Missouri desires that these health care personnel have an opportunity for a quality education; (3) that the University of Missouri-Columbia Medical Center is now and will continue to be the largest single health care institution for rural Missourians; (4) that the citizens of this state deserve to have equal access to this health care resource regardless of their ability to pay; (5) that the state of Missouri desires to continue to provide some component of care for its medically indigent who need care in the University Hospital; and (6) that the costs of health care in the University Hospital will continue to rise in a fashion comparable to similar hospitals throughout the country.

Given these assumptions and given the dilemma it would appear that the solutions would fall into three categories:

1. Continuing acceptance by the state of its responsibilities for the costs of care of the medically indigent in the University Hospital;
2. Continue to increase the efficiency of the University Hospital;
3. Increase the income from patients.

The State's Role in the Care of the Medically Indigent

As indicated earlier, from the beginning of the University Hospital, the state has assumed the cost of the care of the indigent and medically indigent in the Hospital. The percentage that this represents in the total cost of the Hospital operation has been reduced in the last decade from approximately 75% to 50%, primarily as a result of Medicare and Medicaid (Fig. 1). In that same decade, as a result of nationwide increases in health care costs, the cost of operation of the Hospital has increased slightly over 300%. Income from patients has increased approximately 750% while the state component has increased only 200% (Fig. 2). However, that component is now in excess of $7 million and is likely to continue to rise.

In that the Medical Center is the major state-supported medical resource serving citizens from all counties of the state, there is a need for a clear policy statement concerning the commitment to make this resource available to the medically indigent of the state as well as to those who can pay. This policy statement should be accompanied by a clear definition of the mechanism by which the care of the medically indigent will be funded.

In the absence of such a policy statement, one of two alternatives must be faced. The first is using educational dollars for the subsidization of the care of the medically indigent of the state, which would lead to a deterioration of educational programs not only within the Medical Center but in the University at large. The second alternative is refusal by the University Hospital to accept indigent patients for care. This would lead to dozens of counties in the state having no place for the care of their medically indigent. At the same time, it would reduce that patient population in the Hospital below the level sufficient to sustain current health professional educational programs.

Therefore, what is needed is a policy which clearly states the degree to which the state is willing to support indigent care at the University Hospital. This component should be separated from the educational budget and handled by the Legislature as a separate and distinct unit of the University budget. The Medical Center is now in the process of developing alternative proposals for accomplishing this approach.

Increased Efficiency of the University Hospital

A second approach to resolution of the dilemma is obviously to continue to increase the efficiency of the operation of the University Hospital. Steps are always being taken to accomplish this. As mentioned earlier, these steps were enhanced in 1970-1971 when the state failed to provide any increased operating funds at a time of rising health care costs which resulted in a cutback of over $1 million worth of services available.

In addition, there is currently under way an intensive review of the organizational structure and functions of the University Hospital in order to seek additional ways of enhancing efficiency. This includes not only an internal review but, also, the use of outside consultants to provide advice and counsel. Reports from both of these groups should be available late this spring so suggestions for improvement can be incorporated in next year's operation.

Increase in Income From Patients

A third approach to the dilemma is to enhance income from patients, thereby reducing that component assumed by the state for the rising health care costs. As indicated above, this approach has been used in the past with an effective reduction from the 75%-80% level in the early years of the institution to the 50%-55% level at present (Fig. 1). This approach has not kept up with the rate of health care cost rise, however, and further steps need to be taken.

One approach is to increase the efficiency and effectiveness of billings and collections for services already being rendered. Last May, an intensive review of these procedures was initiated with joint efforts by the Medical Center's and University's fiscal personnel along with an outside auditing firm. There is in process the development of a new billing and collections system which will be instituted late this spring and should be in full operation by fiscal year 1972-1973. Although it should enhance significantly the business practices of the University Hospital, it will, however, not solve by itself the long range problems of the financing of the Hospital.

A second approach to this issue is currently under intensive review both by the internal group and outside consultants mentioned above in the discussion of improved efficiency. Both groups are addressing themselves to the methods by which increased numbers of patients capable of paying for their care might be attracted to the University Hospital. Obviously, the enhancement of this income source in the future could absorb for the state much of the future increases in costs of care in the University Hospital. Although their reports are not forthcoming until late spring, several key issues have now surfaced and are under close scrutiny.

One of these is the image held by some that the University Hospital is an indigent care institution. Although such a concept was prevalent and probably valid in the 1950s when the Hospital was founded, it is inappropriate today. The Medical Center, over the last 15 years, has become one of the largest and most sophisticated health care resources in Missouri. Many lack a full understanding of its unique capabilities while others still believe that its services are only available to the indigent of the state. To change these concepts, ingrained for almost two decades in the minds of some of the citizens of the state, will not be an easy task. It will necessitate in all probability (1) a far clearer and broader understanding of the people of the state relative to the kinds of health care services available to them in the University Hospital; (2) modification of the referral policies currently in existence in order that they might have more ready access to that care; (3) a fuller understanding by the physicians of the state concerning the unique assistances that the Medical Center can provide them in the diagnosis and care of their patients; (4) an enhanced effort on the part of the medical staff of the University Hospital in providing that assistance.

Improvements are being made in the delivery methodology within the University Hospital in order that patients will receive care which has a level of *efficiency* as high as the level of *quality* now available. This includes improvements in the registration and admission of patients as well as more effective integration and interdigitation of all of those complex services currently provided, whether they be nursing, radiology, laboratory, cross professional consultation, social service, dietary, pharmacy or others.

The air-conditioning of the Hospital must be completed. Large areas of the University Hospital remain without air-conditioning. As a result, many physicians during the summer are forced to refer their critically ill patients to other hospitals which are air-conditioned when they would prefer to refer them to the University Hospital. Thus, patterns of referral are established which not infrequently are continued throughout the year. This results in significant loss of revenue to the University Hospital.

Further, the diversion of funds to meet the higher costs of labor, medical supplies and equipment has resulted in a deterioration of the physical setting for care within the Hospital and has made it less attractive to some paying patients. Steps have been taken to initiate investments in this refurbishment, but they need to be enhanced and accelerated.

It is felt that, in the long run, these physical alterations will pay for themselves by increasing the attractiveness of the facility to paying patients. Steps are now underway to explore alternate methods of financing these needed changes in the physical facilities.

If there is to be an enhancement of the relative role of patient care within the institution, careful consideration must be given to the impact that this has on the education and research functions of the institution. This question of balance of the traditional trilogy of patient care, education and research is most clearly brought out in the focus of the clinical faculty member who participates in all three. All of the clinical faculty have taken significant reductions in the personal income they could command in the full time practice of medicine in order to pursue their added interests in education and research. Mechanisms must be developed to add additional staff utilizing enhanced patient income, as it is generated, in order to meet the increased patient care commitments while insuring that there is no dilution of the quality and quantity of faculty participation in the education of students and their research productivity.

These and other important issues are currently being pursued both within the University Medical Center and by the outside consultants. Although the solutions are not totally clear as yet, it is obvious that solutions must be found and found soon.

Summary

Academic medical centers throughout the United States are currently faced with a major dilemma—how can they continue to maintain an adequate patient population base to carry out the education of their health professional students who are desperately needed by a nation with expanding health needs while, at the same time, achieve fiscal stability in the face of rapidly expanding health care costs?

The major focus of this dilemma is primarily in the university hospitals of this country whose solvencies are in real jeopardy. The University Hospital of the University of Missouri is no exception to this crisis. It has been presented as a case study of a generic nationwide problem in order to identify the issues and point out mechanisms now underway to seek solutions.

It is clear, however, that if solutions are not found, the very institutions which are being asked to expand their educational output by a nation in short supply of health personnel will not only be unable to do so, but will actually have to decrease output in the face of rising demands. It is felt that solutions can be found, but they will require the understanding of all of the parties involved—the university medical centers and their faculties and staffs, the universities in which they reside, the state legislatures, the physicians of the state and, above all, the citizens who are demanding and have a right to improved health services.

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ROBERT BURSTEIN, M.D. *and*
ERNST R. FRIEDRICH, M.D., ***St. Louis***

Report of the Maternal Welfare Committee of the Missouri Obstetrical and Gynecological Society for 1970

Establishment of OBECONS, an OBstetrical Emergency CONsultation Service

The Maternal Welfare Committee of the state of Missouri has been in existence more than 20 years and has filed annual reports on the analysis of the maternal mortality statistics of the state. These figures have reflected essentially the same findings of other maternal mortality committees throughout the country: a fall from the 68 maternal deaths per 10,000 live births 40 years ago to the present level of approximately 2.9 per 10,000.[1] Although this decline is impressive, according to the records of the Bureau of Vital Statistics, the United States still ranks only seventh among the reporting nations of the world behind Sweden, Denmark, the Netherlands, Norway, Belgium and Ireland. Sweden led the list of countries with a maternal mortality rate of 1.13 per 10,000 whereas Chile had the poorest statistics with 2,718 per 10,000.

The decline in maternal deaths has been the result of improved anesthesia, development of antibiotics, timely blood replacement and the improved quality of prenatal, intrapartum and postpartum care rendered by hospitals and physicians. Better education has impressed upon the patient the need for good prenatal care. The countries that outrank the United States in maternal mortality statistics have homogeneous populations, and excellent, well-funded medical care programs.

The purpose of a Maternal Mortality Committee is more than a review of statistics. Guidelines for improved obstetrical management and for educational programs should develop from the critical investigation of cases. The educational programs should be aimed at preventing in the future any unnecessary loss of maternal lives and should be directed to the four facets of the problem: physician, patient, hospital and community.

The Missouri report consists of the combination of two sectional reports. The deaths in the eastern half of the state are investigated by the Maternal Mortality Committee under the auspices of the St. Louis Gynecological Society, whereas the deaths from the western half of the state are

The Maternal Welfare Committee of the State of Missouri's Maternal Mortality Report consists of the combination of two sectional reports. The deaths in the eastern half of the state are investigated by the Maternal Mortality Committee under the auspices of the St. Louis Gynecological Society and the deaths in the western half of the state are reviewed by the Maternal Mortality Committee of the Kansas City Gynecological Society.

Doctor Burstein is Chairman and Doctor Friedrich is Secretary of the Maternal Mortality Committee of the St. Louis Gynecological Society. Doctor Friedrich also is Chairman of the OBECONS Committee.

Maternal mortality data for the western part of Missouri were supplied by Gene Schillie, M.D. of the Kansas City Gynecological Society.

This paper was presented in part at the Missouri Obstetrical and Gynecological Society Luncheon on April 16, 1971 during the 113th Annual Session of the Missouri State Medical Society.

reviewed by the Maternal Mortality Committee of the Kansas City Gynecological Society.

According to the standard nomenclature,[2] a maternal death is defined as a death of any woman dying of any cause whatsoever while pregnant or within 90 days of the termination of the pregnancy, irrespective of the duration of the pregnancy at the time of termination or the method by which it was terminated. Maternal deaths are subdivided, as follows:

1. *Direct obstetric death:* A death resulting from complications of the pregnancy itself, from the intervention elected as required by the pregnancy or resulting from the chain of events initiated by the complication or intervention.
2. *Indirect obstetric death:* A death resulting from disease present before or developing during pregnancy, which was not due to the direct effect of the pregnancy but was aggravated by its physiologic effects to cause the death.
3. *A non-obstetric death:* A death occurring during pregnancy or within 90 days of its termination from causes not related to the pregnancy nor to its complications or management.

During the period covered by this study, Jan. 1, 1970 through Dec. 31, 1970, the Bureau of Vital Statistics referred to the two sectional committees 35 deaths for investigation. The marked preponderance of deaths in the eastern half of the state, 28 as compared to seven in the western half, cannot be readily explained. Better management? Better death reporting? True sample and fact? Table 1 gives the breakdown of these figures which reveals a maternal mortality rate of 4.35 per 10,000 live births which is correctable to 2.61 per 10,000 when only the obstetric deaths are considered. An autopsy rate of 74% indicated that adequate information was available in most instances to permit the proper disposition and assignment by the Maternal Welfare Committees.

TABLE 1

MORTALITY RATE

35 deaths—80,400 live births	4.35/10,000
21 deaths—obstetric	2.61/10,000
13 nonobstetric	
1 Nonassigned—not enough information	
26 of 35 deaths had autopsies (including 8 coroner's cases) 74%	

Table 2 presents the breakdown of the maternal deaths on the basis of race. Although the Negro live births constitute only 15% in the state, the Negro maternal mortality rate is 37% of all the deaths. At first glance, the high percentage of Negro urban deaths in the eastern section is overwhelming. However, this percentage corresponds fairly closely to the high percentage of Negro infants born in the City of St. Louis (6,585 Negro/5,371 white).

TABLE 2

RACE

		Cauc. (PER CENT)	Negro (PER CENT)
Missouri	35	22 (63)	13 (37)
East	28	16 (57)	12 (43)
Urban	21	9 (43)	12 (57)
Rural	7	7	0
West	7	6	1

Information on parity can be obtained from Table 3. These data indicate that in only two of the 26 cases in which adequate information is available can serious complications that caused the patients' deaths—postpartum hemorrhage and a ruptured uterus—be considered a result of multiparity of five or more deliveries. If three and more pregnancies are considered multiparity, 12 obstetric deaths occurred in this group. Consequently, it can be assumed that about half of all deaths which are directly related to pregnancies could probably be prevented by the use of effective contraceptive methods, if used after two pregnancies.

TABLE 3

PARITY

Total cases	35	
Information available	26	
	Gravida 5 and more	*Gravida 3 and more*°
	6	12
Obstetric Deaths	4	8
Causes:		
Amniotic fluid embolus	1	2
Pulmonary embolus	1	2
Ruptured uterus	1	3
Postpartum hemorrhage	1	1
Septic shock	1	1
Acute yellow atrophy, liver		1

° In two cases either one of two complications could have caused death.

The causes of all maternal deaths are summarized in Table 4; the summary of the direct obstetrical deaths appear in Table 5. Although hemorrhage, anesthesia and infection remain as important etiologic factors, not a single death was caused by toxemia.

Whenever the committee concludes that death

TABLE 4

CAUSE OF DEATH

Hemorrhage: 6
- Ectopic
- Post hysterectomy
- Ruptured—Caesarean section
- Placenta praevia
- Abruptio
- Uterine atony—Afibrinogenemia

Anesthesia: 2
- Cardiac arrest
- Aspiration pneumonia

Pulmonary emboli: 5
Amniotic fluid emboli: 2
Trauma: 4

Infection: 5
- Septic shock
- Abortion
- Kidney
- Enteritis
- Monilia sepsis

Miscellaneous
- Sickle Cell Disease
- Convulsive disorder
- Air embolus
- Acute hemorrhagic pancreatitis: 2
- Acute yellow atrophy
- Cardiac failure
- C.V.A.: 2
- Diabetic coma

TABLE 5

OBSTETRIC DEATHS

Hemorrhage: 6
Anesthesia: 2
Pulmonary emboli: 5
Amniotic fluid: 2
C.V.A.: 2
Infection: 2
Air embolus
Acute yellow atrophy

resulted from direct obstetrical complications, an assignment of the responsibility must be attempted for, under ideal situations, these deaths should have been preventable. The responsibility is usually assigned totally or in part to the physician, the hospital or the patient and is reported in Table 6. In one instance, the community was assigned partial responsibility: a grand multipara stayed at home in active labor because she had no one with whom to leave her small children. Ultimately, her uterus ruptured and she died of exsanguination.

In an effort to help the physician who is faced with an obstetrical complication, the St. Louis Gynecological Society and its Maternal Welfare Committee have established, in September, 1970, an *OB*stetrical *E*mergency *CON*sultation Service —OBECONS.

TABLE 6

ASSIGNMENT
OBSTETRIC DEATHS

M.D.*	9
Patient*	4
Hospital*	4
Community	1
Nonassigned	2

* Partial or total.

Although originally conceived as a service to transport the patient with an obstetric complication to the Medical Center or to take the consultant to the patient, the lack of sufficient funds has made it necessary to limit the scope of the activities to telephone consultations only. To simplify operations of this service at least during the initial trial period, the full time faculty members of the Departments of Obstetrics and Gynecology of two medical schools, St. Louis University and Washington University made themselves available for this free, 24-hour-a-day consultation service. As explained in a printed announcement which was mailed, in September, 1970 to all physicians, osteopaths and hospitals in the eastern half of Missouri and the southern half of Illinois, the physician or nurse who is in charge of a patient with an obstetric complication can call the labor rooms of the collaborating university hospitals and ask for the OBECONS consultant. The caller will immediately be connected with the consultant or the consultant will return the call within a few minutes. The consultant advises the caller in measures he would take in a similar situation. However, only the physician or nurse who is in charge of the patient continues to be responsible for the patient's treatment regardless of whether or not the consultant's recommendations are followed.

Only in rare cases will the consultant recommend transfer of the patient to the medical center for highly specialized treatment if such services are not available locally.

This program has been in operation for one year, but only a disappointingly small number of calls have been received. This is in contrast to the experience which the faculty of the University of Alabama Medical Center had with their Medical Information Service via Telephone—MIST. That Ob-Gyn Department received about 200 calls during the first 18 months of its operation.[3] We tend to believe that the reason for the infrequent utilization of OBECONS is its original restriction to obstetrical emergencies only. However, we want to emphasize that we are equally interested in the prevention of obstetrical-gynecological emergencies and would like to encourage more frequent use of this telephone consultation service (Fig. 1):

Summary

The 35 maternal deaths reported in Missouri, in 1970, correspond to a rate of 4.35/10,000. In 21 cases death was directly related to complications of pregnancy, corresponding to an obstetric death rate of 2.61/10,000. The foremost causes of death were hemorrhage, infection and pul-

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UNIVERSITY HOSPITAL—St. Louis University
Area Code: 314—Tel. 771-7600, ask for Labor-Delivery Room

Fig. 1

monary emboli. No patients died from toxemia. Mortality was significantly higher in urban areas; the racial distribution of deaths was closely related to the birth rates of the white and Negro populations.

In an effort to prevent obstetric deaths an *OB*stetric *E*mergency *CON*sultation Service—OBECONS—was established by the St. Louis Gynecological Society in collaboration with the staffs of the Departments of Obstetrics and Gynecology of Washington and St. Louis Universities.

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Notes of interest from Here . . . . and There

Dr. Monaford D. Durnell, Lee's Summit, has been installed as president of the Kansas City Academy of Family Physicians. He succeeds **Dr. Paul Revare** of Kansas City. Other new Academy officers are **Drs. James Dunleavy**, president-elect; **A. D. Eshelman**, treasurer, and **I. W. Kimball**, secretary. New board members are **Dr. Joseph E. Johnson**, and **Dr. A. H. Moreano.**

Nine members of the MSMA are among 19 Missourians who have been invited by University of Missouri President **C. Brice Ratchford** to serve on an Advisory Committee on Education for the Health-Related Professions. They are **Drs. Herbert R. Domke**, Jefferson City, Director, Division of Health, State Department of Public Health and Welfare; **Walter Gray**, St. Louis, President, Missouri Academy of Family Practice; **Henry V. Guhleman**, Jefferson City, President, Missouri Medical Alumni Association; **Gerald L. Miller**, Kansas City, President, MSMA; **George A. Ulett**, Director, Missouri Division of Health; **Joe A. Zimmerman**, Kennett; **Roland P. Ladenson**, Columbia; **Leonard L. Davis**, Mexico; and **M. F. Hall**, Joplin.

More than 250 friends, associates and patients attended a surprise testimonial dinner on February 12 to bid farewell to **Dr. and Mrs. Wilson J. Ferguson** of Sikeston who have since moved to Atlanta, Ga. Doctor Ferguson, who has practiced medicine in Sikeston for 25 years, received a plaque from the staff of Missouri Delta Community Hospital for his distinguished service and leadership to the hospital. On March 1, he assumed his duties as medical director of the General Motors Corporation in Atlanta.

Dr. Troy Morgan, Albany, has filed for the post of Gentry County coroner. He served in this office from 1964 through 1968. **Dr. Bernie Parsons**, of Albany, who now holds the post, is not seeking reelection.

Dr. Charles A. Molden has been elected president and chief-of-staff at Missouri Baptist Hospital in St. Louis. **Dr. Miles C. Whitener, Jr.** was named secretary of the medical staff.

Correction, please! **Dr. Clifford Talbert, Jr.**, project director for Cardiac Care Missouri, lives and practices medicine in Cape Girardeau and not in Carthage, as indavertently stated in the March, 1972 issue of this journal. The Missouri Heart Association, Missouri Regional Medical Program and local hospitals in Southeast Missouri are cooperating through Cardiac Care Missouri to reduce the death rate from heart disease in that area. The three-year program is designed to make adequate cardiovascular care appropriate, acceptable and affordable for the citizens of Southeast Missouri and to place this care within one hour's reach of each citizen living in the 25-county region.

WASHINGTON

The Senate Finance Committee has completed public hearings on the catch-all Social Security amendments bill (HR 1) and is expected to approve legislation soon containing important peer review changes in Medicare and Medicaid and a national catastrophic protection plan.

As approved by the House last spring, the bill was much the same as the one that went through the previous congress only to be stalled when there wasn't time at the end of the session to reconcile differences in the House and Senate versions.

The bill before the committee would:

- Authorize health maintenance organization (HMO) experiments.
- Extend Medicare to disabled Social Security beneficiaries; authorize experiments with peer review mechanisms.
- Restrict physicians' fee increases to a cost-of-living index.
- Give the HEW Department stronger policing powers over abuses.
- Authorize experiments with prospective payments to institutions.

The committee appears certain to add two major provisions. One would institute a sweeping catastrophic protection plan for all Americans administered by Social Security; the other is the professional standards review organization (PSRO) plan under which groups of physicians, including medical societies and foundations, would have first opportunity to set up monitoring programs for Medicare and Medicaid in their areas.

In a statement filed with the Senate Finance Committee, the American Medical Association commented on a number of provisions of the proposed legislation. With respect to the catastrophic protection plan, the AMA advised against its adoption, saying: "We believe that catastrophic coverage, to achieve its purpose, must be tied in with adequate basic coverage in order to afford the best range of protection." The Association recommended in its place that the basic and catastrophic provisions of its own Medicredit proposal be adopted by the Committee.

The Association supported provisions in HR 1 authorizing the Secretary to conduct experiments in communitywide peer review programs. It pointed to the many peer review activities presently ongoing, noting that under the experimental authority, various programs, including those with professional standards review organization (PSRO) features, could receive necessary broad-scale experimentation. It stressed the need for further research and experimentation, cautioning against the adoption of a single nationwide program.

"If enacted," the AMA said, "PSRO would lock peer review into one single, untested, nationwide program with unpredictable consequences. On the other hand, many valuable benefits can be gained through appropriate experimentation. HR 1 (prior to the PSRO amendment) provides authority to the Secretary of HEW to conduct such experiments in communitywide peer review programs, and we believe it would be wise to implement this authority before any single overriding plan is adopted."

With respect to the Health Maintenance Organization (HMO) provision of the bill, the AMA statement noted that under separate legislation "an effort is underway to bring HMO's into existence without evidence of their economic justification or viability without continuing federal subsidy after being established." The AMA said that "before any such program is initiated nationwide and is held out as a realistic benefit available to beneficiaries under the Medicare program, it is our recommendation that cost and utilization data first be developed.

"Besides the consideration of whether the HMO provision will, in fact, result in cost savings to the program, there is the paramount consideration of the health care which will be provided to the beneficiary. We are not alone in expressing serious concern about a program which provides incentives to providers for lower utilization of benefits, and this aspect of the program—underutilization—must be watched very closely so that the beneficiaries receive the best quality care. There are many additional questions to be resolved concerning the efficacy of this form of contract medicine. Moreover, it is important that the control and operation of the HMO be under the direction and supervision of physicians so that high quality care is provided. Operation of the health maintenance organizations under the direction of individuals or groups not competent in the health field should not be sanctioned."

The AMA statement also included the following:

- Opposed the proposed Medicare limits of 75% on prevailing charge levels, stating "we know of no such direct statutory limitations on prices, wages or charges in other private sectors of the economy."
- Opposed as "unjustifiably repetitive" a further study of inclusion of chiropractic benefits under Medicare.
- Said needy disabled should be covered under Medicaid rather than included in toto under Medicare, thus changing the concept of Medicare as a program for those over age 65.
- Opposed any federal restrictions on drugs physicians may prescribe for patients covered under federal programs.
- Urged the Committee to extend for five years maternal and child health programs of Social Security.

* * *

Sen. Edward Kennedy (D., Mass.) has promised the California Medical Association his Senate Health Subcommittee would not make public information contained in the working papers involved in the CMA's medical staff survey of hospitals. The senator said the papers would be treated as confidential documents and examined only under special committee rules at closed sessions.

PRESCRIPTIONS

"Are you in a rush for this?"

However, Kennedy refused to grant the CMA's request at a one-day public hearing to exempt working papers from the scope of a Subcommittee subpoena for the final CMA medical staff reports and working papers on 45 California hospitals most of which had been disapproved by the investigators.

CMA president Jean Crum, M.D., told the Subcommittee, "We believe that to subpoena work papers that include the personal impressions noted by the CMA surveyors, and sometimes the names of patients and physicians, could prove to be highly harmful to this important segment of the medical profession's comprehensive peer review activities."

There was no dispute over turning over to the Subcommittee the CMA's final reports.

Kennedy said the information was needed to allow the Subcommittee "to adequately fulfill its responsibility in drafting health maintenance organization legislation in respect to the quality of medical care."

The controversy, however, poses a larger issue than the immediate case of California.

A provision of the catch-all Social Security bill (H.R. 1) before the Senate Finance Committee establishes peer review organizations nationally under Medicare and Medicaid. Thus, the confidentiality of working peer review papers may become a problem that Congress will have to settle.

Although Kennedy's decision to examine the papers only in closed sessions was a significant concession, the CMA still was compelled to turn over all of the information requested including the working papers, to the Subcommittee.

* * *

A cabinet-level department of health is slated to receive a serious push in Congress this year, although time won't permit enactment. Rep. Paul Rogers (D.-Fla.) influential chairman of the House Health Subcommittee, plans to introduce legislation and hold hearings.

Impetus to the drive could come from the Democratic Party's National Convention where a party plank provision may endorse the health department idea.

However, the Administration opposes the plan. President Nixon's moribund cabinet reorganization plan moves in the opposite direction, calling for the Health, Education and Welfare Department to be changed to a Department of Human Resources with added welfare programs from Labor and Agriculture Departments lumped in.

There is no question, however, from the standpoint of size and importance that health ranks a cabinet spot. Federal outlays for health next fiscal year are put at $25.5 billion, 10.3% of all federal expenditures. However, Administration supporters argue it makes sense to contain within one umbrella most programs involving health and welfare as they are intimately connected and need single supervision. Education isn't quite so related, but there hasn't been much pressure to separate this function which ranks third in spending at HEW (about $6 billion) and fits in as well at HEW as anywhere else.

Backers of a health department contend that health gets short changed because it doesn't have cabinet clout. Rogers argues that health is an administrative mishmash and that as a result the White House Office of Management and Budget is the real maker of health policy. "The federal health establishment is entitled to have a full-time secretary of health who can be heard in the White House over the guillotine of the Office of Management and Budget," Rogers declared in a speech last fall.

* * *

The legalized use of marihuana would appear a long way off despite reports showing growing support for "decriminalization." Only continued increase of marihuana smoking over a number of years and a new generation of lawmakers could bring about climate for legalization, congressional experts predict. However, scaling penalities further down, especially for use, is a real possibility. The National Commission on Marihuana and Drug Abuse is reported ready to recommend dropping all criminal sanctions against private use, but this falls short of legalization as sellers and importers would continue to be subject to criminal action.

The National Institute of Mental Health yearly report to Congress on health aspects of marihuana found relatively little evidence of serious ill-effects with acute reactions apparently rare. Current information does not justify making marihuana legal, according to NIMH Director Bertram Brown, M.D., who nevertheless criticizes harsh penalties. Preliminary survey findings that chronic users of the drug in Greece and Jamaica appear to be healthy surprised the researchers. However, its effect on emotionally unstable teenagers can be a serious retarding development, causing breakdowns.

* * *

The government has elevated alcoholism as a priority target with submission of the first special report on alcohol and health to Congress. The report contains current information on the health consequences of using alcoholic beverages. No recommendations for legislative action are being submitted at present.

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Health Care Foundation Membership Reaches 2,000

A membership program launched recently by the Health Care Foundation of Missouri has resulted in more than 2,000 membership applications. The total represents applications from approximately 43% of the members of the Missouri State Medical Association and more than 46% of the members of the Missouri Association of Osteopathic Physicians and Surgeons.

Hector W. Benoit, Jr., Chairman, said that the Foundation considers the program successful but hopes that the membership will include all physicians in Missouri by the end of 1972. He added, "Since Foundation membership is entirely voluntary, it is heartening to see that the physicians in Missouri medicine are espousing the Foundation concept and are willing to participate in the statewide peer review mechanism created by the Foundation. It is our only viable answer to the national Professional Standards Review Organization (PSRO) concept recently approved by the Senate Finance Committee."

Major objectives of the HCF of Missouri focus on the improvement of the quality of health care in Missouri as well as cost-optimization and education. Now in its second year of operation, the Foundation is receiving an increasing number of requests to review activities of health care providers and institutions on matters of fee, appropriateness of care and proper utilization of facilities and services by patients as well as physicians.

Doctor Benoit announced the following organizational changes within the Foundation:

Francis M. Maple, M.D., of Springfield, formerly a member of the Foundation's Central Coordinating Committee, has been elected to the Board of Directors, succeeding Rae W. Froelich, M.D., Lebanon. James A. Kinder, M.D., Cape Girardeau, will replace Doctor Maple on the Committee.

Clement B. Grebel, M.D., St. Louis, formerly Chairman of the Region C (St. Louis) Peer Review Panel, has been named Chairman of the Foundation's Central Coordinating Committee. His replacement on the Peer Review Panel is William G. Juergens, M.D., St. Louis.

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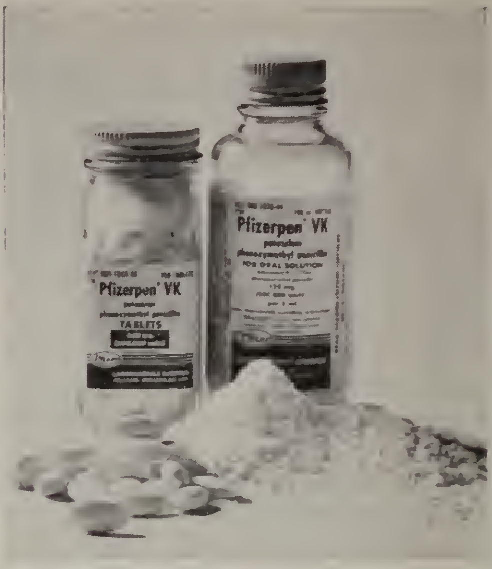

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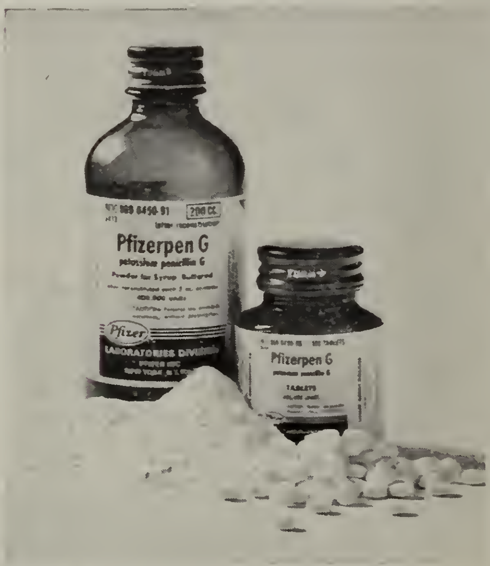

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MSMA SCIENTIFIC SESSIONS APPROVED FOR AAFP CREDIT

The scientific sessions to be held during the 114th MSMA Annual Session on April 6-9 at the Muehlebach Hotel in Kansas City have been approved for 36 elective hours of continuing medical education by the American Academy of Family Physicians. (See scientific program on page 244.)

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Survival Following Abdominal Aortic Rupture From Blunt Trauma

Case Report

TRAUMATIC INJURY and rupture of the thoracic aorta is not a rare event. Numerous reports document the high incidence of this catastrophe from automobile accidents.[1] Survival after operative repair also is no longer a rarity. Rupture of the abdominal aorta, on the other hand, is infrequent. Parmley reports only 13 abdominal aortic injuries compared with 262 thoracic aortic injuries.[2] We know of no reported long-term survivals with rupture of the abdominal aorta following blunt injury. The purpose of this paper, therefore, is to report a case in which a person sustained injury, but is alive and well two months following the accident.

CASE REPORT

A 31-year-old white man was involved in a one car automobile accident at approximately 8:30 PM on Nov. 19, 1971. He apparently was thrown from the vehicle. Exact details of the accident in regard to his position in the car, seat belts and ethanol intake are not known to us. The victim was immediately taken to the local community hospital where findings were those of facial fractures only. Vital signs were stable; urine via foley catheter drainage was clear; hematocrit value was stable. Chest x-ray was normal. On Nov. 20, 1971, the patient was referred to the plastic surgery service at the University of Missouri Medical Center for treatment of his facial fractures. His past history was noncontributory. He had been in good health.

Physical examination upon admission showed a healthy looking, white man in no acute distress. He was oriented to time, place and person. Blood pressure was 150/75; pulse rate, 90 beats per minute; respiration rate, 20 per minute. His color was good. Examination of the head, eyes, ears, nose and throat showed the following: a sutured laceration of the chin, right periorbital ecchymosis and marked swelling, right subconjunctival hemorrhage, extraocular muscles intact, no diplopia, right infraorbital hyperesthesia, palpable fracture of left frontal process of maxilla and clinical mandibular fractures.

The patient's chest showed equal expansion, and his lungs were bilaterally clear. The abdomen had small bruises over the lower quadrants and was slightly distended. There was moderate lower abdominal tenderness. Bowel sounds were normal. The extremities showed good and equal peripheral pulses.

Rupture of the abdominal aorta is a rare injury resulting from an automobile accident (blunt trauma), and long-term survival has not been reported previously. The patient in this case report had a delayed rupture. After successful operative management, he is alive and well. Doctor Sinclair is a Resident Physician in Surgery and Doctor Stephenson is Professor of Surgery at the University of Missouri School of Medicine.

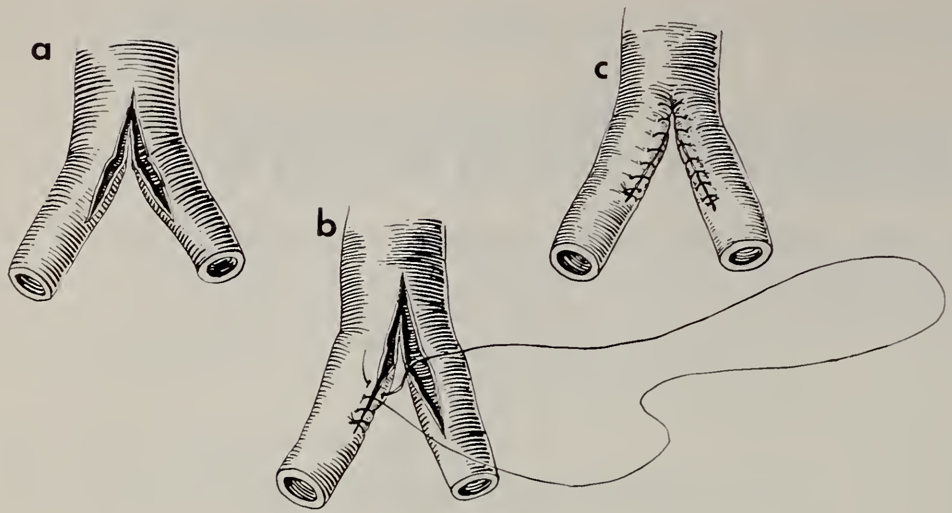

Fig. 1 (a) Nature and extent of aortic tear with (b and c) subsequent closure.

Initial laboratory studies and x-rays showed the following: hemoglobin level, 12.4 gm/100 ml; hematocrit value, 37%; blood urea nitrogen, 25 mg/100 ml. Chest x-ray was normal. Abdominal film was read as normal. There was a small chip fracture of the body of the fifth lumbar vertebra.

At 6:30 PM on Nov. 20, 1971, nearly 24 hours post-injury, the patient had a sudden cardiac arrest. Using closed-chest massage, ventilatory support via endotracheal tube, lactated Ringer's solution and plasma, the patient was successfully resuscitated. The abdomen was distended. A positive abdominal tap for blood was obtained. The hematocrit value at this time was 10%. The patient was taken to the operating room where the operative findings were those of an extensive retroperitoneal hematoma. Intra-abdominal organs were uninjured. Pulses over the iliac arteries were weak. The retroperitoneal space was opened and explored, and a tear was found at the aortic bifurcation (Fig. 1). Proximal and distal control were quickly obtained and the tear was sutured with running 0000 Tevdek. Intraoperatively, the patient required nine units of whole blood. The postoperative period was uneventful. There were no neurologic, renal, pulmonary, cardiac or distal extremity problems. The facial fractures were repaired, and the patient was discharged on the 21st postoperative day.

Discussion

Aortic injury appears to be increasing in proportion to the increase in the number of high-speed automobile accidents. The pathogenesis is related to the forces exerted in rapid deceleration at the points of relative fixation of the aorta. These sites of injury are the aortic isthmus (in well over 50% of the cases), the ascending aorta, the aorta at the diaphragmatic hiatus and at the aortic bifurcation.

Abdominal aortic injury, however, is uncommon. It may be due to the fact that most patients present as "dead on arrival" (DOA) or in extremis and are never operated on nor have autopsy examinations. Abdominal aortic bifurcation injury occurred in three of 42 patients as reported by Greendyke,[3] all of whom were fatalities and had postmortem examination. Parmley[2] reports 13 abdominal aortic injuries out of 275 aortic injuries. Ten were DOA. Three survived for a short period of time, the longest being 22 days.

The patient in this report had a delayed rupture. The combination of clot formation at the injury site and the tamponade effect of the retroperitoneum probably prevented the diagnosis from becoming manifest at an earlier hour. Only when the clot began to lyse and became dislodged or both did massive hemorrhage and cardiac arrest occur. There were no associated pelvic fractures. There was, however, a chip fracture at the body of the fifth lumbar vertebra, but this is well below the aortic bifurcation and did not account for the aortic tear. It merely illustrates the tremendous forces involved in this type of accident.

Summary

Successful operative management of a ruptured abdominal aorta after blunt trauma is reported. Cardiovascular collapse with cardiac asystole prior to surgery required cardiac resuscitation. The relative rarity of abdominal aortic rupture in trauma victims is noted. A successful outcome is particularly rare.

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A Child Development Health Center: Problems and Potentials

On Oct. 1, 1971, the Children and Youth Division of the Mid-Missouri Mental Health Center and the Department of Psychiatry, University of Missouri-Columbia School of Medicine, opened a new unit called the Child Development Unit. This was made possible through a grant from the National Institute of Mental Health. The rationale for this unit is to provide psychiatric services to children of ages six and under which, heretofore, have been unavailable in the Central Missouri area. Indeed, these kinds of services are rare anywhere in the country.

This program is directed toward the prevention of preschool-age children's emotional problems and delayed personality development through a specialized treatment program. The type of child with whom we are interested in working might display an inability to learn at a rate commensurate with his intellectual, sensory-motor and physical development; an inability to establish and maintain adequate social relationships; an inability to respond appropriately in day-to-day life situations; or a variety of excessive behaviors ranging from hyperactive, impulsive behavior to depression and withdrawal.

Our approach utilizes the team concept. Our team consists of a child psychiatrist, psychologist, child development specialist, occupational and recreational therapists, speech and hearing therapist, special education teacher, psychiatric social worker, psychiatric nurses and aides. Each team member contributes an area of expertise and works toward implementation of the team's evaluation and therapy plans.

It did not take long after the start of our program for us to realize the difficulties in evaluating these small children. A case history will illustrate some of the problems.

Case

A 3½-year-old boy was referred to the Child Development Unit by another agency in the southern part of Missouri because he wasn't talking and it was felt that he might be autistic. We will call him David. The history revealed that his father left the home at the time of David's birth and that his mother had left him in the overindulging care of her parents. The mother would see David on weekends. When David was 1 year old, the mother began to wonder if David were retarded in his development because he wasn't walking or attempting to say any words. At the age of 15 months, he started walking. Until admission to our unit, however, he had never uttered any meaningful words. The mother further noticed that at the age of 2 David was showing a lot of negative behavior, temper tantrums and a tendency to withdraw from other children and adults.

When our staff evaluated David, we saw the same problem that had been described with no physical explanations. At first, we attempted to ferret out an etiology for David's problems. Was this boy showing extreme negativistic behavior, including mutism, because of environmental factors or was he "brain damaged" or retarded? This tact is an interesting academic exercise with very little practical application for an individual patient. We simply don't have the tools to examine specific brain areas and to relate them to specific functions. Once we are satisfied, through standard medical procedure including EEG and laboratory screening, that there is no ongoing diagnosable disease process, we are confronted with the problem of what to do next. We weren't satisfied with the old axiom of "bring him back in a year and we'll take another look."

We chose an eclectic approach of trial and error. David was put into a structured program focusing on one-to-one relationships with a few staff mem-

A new and unusual child development program has been initiated to enhance prevention of psychiatric disorders in young children and to determine the best treatment modalities for preschool children with emotional and developmental handicaps. This new service is exciting and challenges the staff to find new solutions for complex problems of the very young. Doctor Jones is Assistant Professor of Psychiatry and Director of Inpatient Service, Children and Youth Center, University of Missouri School of Medicine.

bers. A speech therapist, an occupational therapist and a nurse began to insist that David complete tasks which we knew he could do and, eventually, to say words associated with his activities. After three weeks, David was relating well to certain staff and sought them out to interact with them. He became successful at toilet training and gradually began to soften his negative approach. Progress was being made. The social worker invited the mother to become part of the therapy team helping David, and she observed how we handled problems. She became more enthusiastic about David's potential. We still are not sure about David's diagnosis or his prognosis, but, along with David, we are learning how to help him develop.

Discussion

The classical medical approach to symptoms and signs is to diagnose, find an etiology, give a prognosis and prescribe a treatment predetermined by the diagnosis. Yet, in most of our young children with developmental lags, the etiology is vague, with such ideas as birth trauma, genetic defects, "minimal brain damage," environmental deprivation, congenital defects and poorly-defined encephalitis being offered as explanations. The symptom complexes we observe have as yet defied grouping into specific diagnoses. It bothers us and the students in our program because we can't look at a child, give him a few tests, talk with his parents and provide an instant evaluation that clearly explains what is wrong with the child and what we must do to counteract his faults. These small children have a bewildering array of symptoms which often are here today and gone tomorrow. There are no simple explanations. Complexity and puzzlement have to be tolerated until research unlocks more definitive answers.

The Child Development Team has attempted to set up individual programs for each child on our unit. We have found that a balanced schedule of one-to-one and group interaction works best. The child must be rewarded for any movement toward our behavioral objectives. The quality of patience is not simply a virtue, but a necessity for working with these children.

A Child Development Team should offer more than psychiatric services to an individual child. We believe that the family must be intimately involved in any therapeutic endeavor so that the burden of continuous dealings with a problematic child can be gradually shifted away from the professional staff to the parents. The parents have an unrelenting desire for and right to knowledge concerning their child. A parent's attitude toward a child can be markedly altered by relieving thinly disguised feelings of guilt for having produced a problem child. Indeed, classic psychoanalytic theory seems to offer little in the evaluation or treatment of these children. Our preferred approach with the parents is one of education, support and often marital counselling.

Another function of the Child Development Unit is education of the community as a whole. Here the approach should be understanding the development of the normal child and what constitutes normal family interactions. Only in the past several years have professional mental health workers begun to realize the vast range of behavior that a well adjusted family may exhibit. The whole concept of normality seems to become more blurred as we focus on the more complex interactions within family units.

We have found much demand within the community for help in understanding preschool-aged children. Nursery schools, Head Start programs, church and school groups, college level classes and the news media have all asked for some form of consultation. Of course, the more questions people ask, the more the staff becomes aware of its own lack of knowledge. Hopefully, this will stimulate us to do more searching through experience and research to provide answers and to make us more explicit in what we teach our medical students and psychiatric residents.

In summary, a fledgling child development program has been started at Mid-Missouri Mental Health Center and the University of Missouri-Columbia School of Medicine in order to enhance the prevention of psychiatric disorders in young children and to determine the best treatment modalities for preschool children with emotional and developmental handicaps. This kind of service is new and exciting for it offers the community a tremendous potential in preventive mental health. It challenges the professional staff to abandon unprofitable dogmas and to find solutions for complex problems of very young children.

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Diagnosis of Diabetes: Use of the Oral Glucose Tolerance Test

ALTHOUGH DIABETES MELLITUS is a complex metabolic disorder, the only readily available laboratory guide to the presence of the disease is the patient's blood glucose. Hyperglycemia, therefore, is essential for the diagnosis of diabetes. The diagnosis can be considered established when there is consistent fasting hyperglycemia. However, many patients with diabetes have normal or equivocal fasting glucose levels, and it becomes necessary for the physician to perform a "loading" procedure to ascertain whether or not there is altered glucose tolerance consistent with the diagnosis of diabetes.

One can usually assess the clinical status of the patient as being normal, suspected diabetic or overtly diabetic prior to performing an oral glucose tolerance test (GTT). Based on each of these clinical classifications, alternative diagnoses can be made (Table 1). For example, when an abnormal GTT is obtained in a clinically normal patient, one would hesitate to label such a patient as having diabetes, although this is often done. Perhaps, it would be wiser in this instance to diagnose the patient as having abnormal glucose tolerance without specifying that he is diabetic. Interpretation of test results must always be made with the clinical status of the patient in mind.

An abnormal GTT, however, does not conclusively establish the presence of diabetes mellitus. One must consider the entire clinical picture when interpreting abnormalities of glucose tolerance (Table 2). It is known that various medications impair glucose tolerance; many drugs that are suspected of influencing tolerance, therefore, should be discontinued for a period of time at least equal to their expected duration of action. For patients taking oral contraceptive agents, it is recommended that they be discontinued for at least one cycle prior to testing. Oral hypoglycemic agents should be discontinued for at least three days.[1] Various endocrinopathies alter glucose tolerance, and it should be recognized that abnormal glucose tolerance in the presence of diseases, such as adrenal cortical hyperfunction, do not necessarily imply that the patient has the genetically-determined disorder, diabetes mellitus. Gastointestinal disorders often create abnormalities of glucose tolerance, especially in the presence of gastric hypermotility. There is a distinctive glucose tolerance curve for patients with this rapid absorption phenomenon, which is marked by a high peak glucose value, with a return to normal levels within two hours. It has been commonly stated that the elderly person may have decreased glucose tolerance due to aging, but this is not an established fact.[2] Finally, laboratory error may influence the curve in several ways. Mislabelling of samples as to the time at which they were obtained could produce spurious rebound phenomena. Also, since glucose is metabolized by erythrocytes, blood samples should be analyzed promptly. If delay in the analysis is anticipated, the sample should be centrifuged and *serum* glucose measured or the specimens should be collected in sodium EDTA (1 mg/ml of blood) and sodium

TABLE 1

CLINICAL APPLICATION OF GTT RESULTS

Clinical Impression Prior to GTT	*Normal*		*Suspected Diabetic*		*Overtly Diabetic*
Result of GTT	Normal	Abnormal	Normal	Abnormal	Abnormal
Possible resultant diagnoses	Normal	1. Abnormal GTT 2. Diabetes mellitus	1. Normal 2. "Pre-diabetes"	1. Abnormal GTT 2. Diabetes mellitus	Diabetes mellitus

TABLE 2

POSSIBLE CAUSES FOR AN ABNORMAL GTT

Diabetes mellitus
Stress situations (starvation, debilitation, acute febrile illness, myocardial infarction, stroke, surgery)
Drugs (oral contraceptive agents, salicylates, nicotinic acid, diuretics, glucocorticoids)
Endocrine disorders (thyrotoxicosis, adrenal cortical hyperfunction, pheochromocytoma, acromegaly, insulinoma)
Gastrointestinal disease (and gastrointestinal surgery)
Uremia
Advanced age
Laboratory error

fluoride (2 mg/ml of blood) to preserve the glucose content of the whole blood.[1]

Indications and Contraindications for Performing a GTT

The indications for testing glucose tolerance are summarized in Table 3. Certainly, the most frequent indication is to diagnose diabetes when altered glucose metabolism is clinically suspected, but fasting and postprandial glucose levels are normal or equivocal.[3] Secondly, during the stress of pregnancy, the presence (or history) of certain parameters should be a warning to the physician that he may have difficulty in managing the pregnancy, and he should not hesitate to perform a GTT. Whether or not a diagnosis of diabetes mellitus should be made on the basis of abnormal glucose metabolism during pregnancy is a moot question, since many of these patients will revert to normal tolerance postpartum.[4] Glucosuria of any degree should be investigated, including performance of a GTT if necessary. The renal threshold for glycosuria can be determined during a GTT by measuring simultaneous serum and urine glucose levels.

TABLE 3

INDICATIONS FOR GTT

1. Clinical situations suggesting the presence of diabetes mellitus, when definite hyperglycemia is absent, such as:
    a. Family history of diabetes
    b. Retinopathy
    c. Peripheral vascular disease
    d. Unexplained neuropathy
    e. Furunculosis
    f. Obesity (especially if there is a family history of diabetes)
    g. Birth weight greater than 9 pounds
2. Presence during pregnancy of:
    a. History of big babies, fetal or perinatal losses, congenital anomalies
    b. Glucosuria
    c. Excessive weight gain
    d. Toxemia
    e. Family history of diabetes
3. Glucosuria
4. Determination of the renal threshold for glucose

Contraindications fall into two categories (Table 4). If there are consistently elevated fasting sugar levels or a documented history of ketoacidosis, the diagnosis of diabetes is thereby established and a GTT is superfluous. In the presence of many "stress" situations, glucose tolerance may be temporarily altered and, thus, an abnormal GTT cannot be considered to reflect fairly upon the patient's usual glucose tolerance. The test might have clinical significance in the immediate management of the patient, but should not be construed to establish unequivocally the presence of diabetes mellitus per se.

TABLE 4

CONTRAINDICATIONS FOR GTT

1. GTT unnecessary for the diagnosis of diabetes:
    a. Consistently elevated fasting glucose levels
    b. Episodes of diabetic ketoacidosis
2. Presence of "stresses" that may temporarily alter glucose tolerance:
    a. Undernutrition or starvation
    b. Debilitation
    c. Acute febrile illness
    d. Recent myocardial infarction
    e. Recent cerebrovascular accident or head injury
    f. Recent surgery

Recommendations on Procedure

Because of the wide variability in methodology, the Committee on Statistics of the American Diabetes Association has published recommendations for standardization of the GTT.[1] These may be summarized as follows:

1. *Preparatory Phase.*
    a. Diet. The patient should have an intake of at least 150 gm of carbohydrate daily for three days prior to testing.
    b. Medication. Drugs known or suspected to influence the GTT should be discontinued for at least three days prior to test.
    c. Fasting. No food should be consumed for at least eight hours, but not more than 16 hours preceding a test. Water may be given ad libitum.
    d. Miscellaneous. Smoking and unusual physical exercise should be avoided for at least eight hours before testing.

(Continued on page 277)

The oral glucose tolerance test (GTT) often is accepted as a specific test to conclusively determine the presence or absence of diabetes mellitus. The author discusses indications for performance of the test, recommendations on the test procedure, proper selection of patients and several criteria for interpretation of the results. Doctor Quick is a Postdoctoral Fellow in the Department of Medicine, University of Missouri School of Medicine.

- e. Postponement. Unexpected illness (fever, gastritis, ketonuria), or food ingestion within eight hours should be criteria for postponing the test.

2. *Testing Phase.*
    - a. Time. The test should be started between 7 AM and 9 AM.
    - b. Glucose load. A standard dose should be administered. The Committee on Statistics recommended that this be 40 gm of glucose per square meter of body surface, consumed within five minutes after obtaining the fasting glucose specimen.
    - c. Specimen timing. Antecubital venous blood specimens should be used. Time 0 occurs when the patient begins drinking glucose. Blood samples should be drawn at one, two and three hours. Other samples may be obtained for additional definition of the curve.
    - d. Patient behavior. The patient should avoid physical exertion, emotional stress, alcohol and stimulants such as tobacco, coffee and tea during the test.

INTERPRETATION OF TEST RESULTS

There are no standard criteria for evaluating a GTT curve. Some authors set higher "normal" glucose levels, creating a more selective GTT, while others set the "normal" levels at lower figures, decreasing selectivity but increasing the sensitivity of the test. Other problems arise concerning the methodologies of published criteria. The glucose load utilized in different reports varies widely and, thus, even the normal curves might be expected to differ somewhat. Many published criteria utilize *whole blood* glucose, although some laboratory methods currently in widespread use measure *serum* (or *plasma*) glucose. These values are not identical and criteria must be adjusted accordingly (Table 5). Also, it is felt that pregnancy alters glucose tolerance. O'Sullivan recommends that the USPHS criteria (Table 5) be modified so that the maximal normal values during pregnancy would be fasting, 90; one hour, 165; two hours, 145; and three hours, 125 mg% of whole blood glucose.[5]

The physician who is faced with the problem of interpreting a GTT must decide in advance what values of blood sugar he will consider abnormal. Since there are no universally-accepted criteria, he may choose a method from among the various published standards, such as those listed in Table 5. If the results of a GTT seem "borderline," or almost, but not quite, fitting the criteria chosen, it would be wise to repeat the test at a later date. One may assume that repeated testing will demonstrate a more clear-cut abnormality of glucose tolerance than would a single GTT.[3]

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(Continued on page 281)

TABLE 5

CRITERIA FOR ABNORMALITY OF THE GTT

Author	*Whole Blood Glucose**		*Serum Glucose†*
Mosenthal & Barry[2]	Peak > 150 & 2H > 100		Peak > 180 & 2H > 120
Fajans and Conn[6]	1H ≧ 160 & 2H ≧ 120		IH ≧ 190 & 2H ≧ 145
USPHS[7]	F ≧ 110: 1 point 1H ≧ 170: ½ point 2H ≧ 120: ½ point 3H ≧ 110: 1 point	≧ 2 points is abnormal	F ≧ 130: 1 point 1H ≧ 200: ½ point 2H ≧ 145: ½ point 3H ≧ 130: 1 point
UGDP[8]	Sum of [F, 1H, 2H, 3H] ≧ 500		Sum of [F, 1H, 2H, 3H] ≧ 600

* F: Fasting
1H: 1 Hour
2H: 2 Hours
3H: 3 Hours

Peak: either ½ hour or 1 hour

† Conversion formula: S = (WB × 1.15) + 6 (Committee on Statistics, ADA[1]).

R. MARK KIRK, M.D., IAN M. THOMPSON, M.D. *and*
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Abdominal Masses in Children: A Diagnostic Dilemma

Case Reports

THE DISCOVERY of an abdominal mass in a child continues to be a prelude to unnecessary diagnostic procedures and inappropriate surgical intervention primarily because it is still not clearly understood that abnormalities of the genitourinary system are responsible for the great majority of these masses. Although an excretory urogram is usually secured when the nature of an abdominal mass is not readily apparent, the sense of urgency emanating from the publicity which has accrued to the Wilms' tumor often precipitates surgical exploration prior to the completion of a detailed evaluation of the genitourinary tract. It is apparent that there are relatively few instances in which a brief interval of additional urologic study cannot confirm or exclude a genitourinary derivation of a mass and, thereby, obviate unfortunate situations which can be engendered by exploratory coeleotomy.

Our experience with abdominal masses in children emphasizes the etiologic primacy of abnormalities of the genitourinary system in their development and, in certain instances, the unsatisfactory consequences of surgical exploration when further study of the urinary tract could have provided a precise diagnosis.

The authors warn against hasty and incomplete study before surgical exploration of abdominal masses in children. They emphasize that the majority of these masses arise from the genitourinary tract and complete urological evaluation is necessary to avoid misdiagnosis or precipitous exploratory surgery and its attendant hazards. Doctor Kirk is Chief Resident in Urology and Doctor Thompson is Chief of the Section of Urology in the Department of Surgery, University of Missouri School of Medicine. Doctor Dale is associated with the Missouri Crippled Children's Service.

TABLE 1
FREQUENCY OF FLANK MASSES IN CHILDREN

	No.	*%*
I. Genitourinary	46	77
II. Gastrointestinal	7	11
III. Hepatic	4	7
IV. Other	3	5

During the past ten years at the University Hospital, 60 children with abdominal masses presented as diagnostic problems. All patients in whom a diagnosis had been made previously and those with readily apparent conditions, such as biliary atresia, hypertrophic pyloric stenosis, small bowel obstructions or malrotations, were excluded from this compilation.

The majority of the masses of questionable etiology arose from the genitourinary tract (Table 1). This system accounted for 46 (77%) of the masses and all but five arose from the kidney (Table 2). Twenty-one (35%) were the result of massive hydronephrosis while nephroblastomas accounted for nine (15%). Two multicystic kidneys were encountered as were two cases of renal dysplasia. One child presented with a "pancake" kidney and another with an infantile polycystic kidney. Other renal masses were found in two children with leukemic infiltrate and in another, a perinephric abscess resulting from leukemic infiltrate. An alveolar rhabdomyosarcoma presented as a mass as did a retroperitoneal hematoma. In the latter, it was several hours after admission that the history of old trauma to the flank was elicited. Other genitourinary masses included three neuroblastomas, a rhabdomyosarcoma of the bladder and an unusually large utricular cyst.

Although the gastrointestinal system was the next most common source of abdominal masses,

TABLE 2

GENITOURINARY FLANK MASSES

		%	No.	%
I. Renal			41	89
A. Hydronephrosis	21	(46)		
B. Nephroblastoma	9	(20)		
C. Leukemic infiltrate	3	(7)		
D. Multicystic kidney	2	(5)		
E. Renal dysplasia	2	(5)		
F. Infantile polycystic kidney	1	(2)		
G. Alveolar rhabdomyosarcoma	1	(2)		
H. Retroperitoneal hematoma	1	(2)		
I. Pancake kidney	1	(2)		
II. Neurogenic			3	7
A. Neuroblastoma	3	(7)		
III. Bladder			1	2
A. Rhabdomyosarcoma	1	(2)		
IV. Other			1	2
A. Utricular cyst	1	(2)		
Total			46	100

it accounted for only 11% of the total (Table 3). Four masses were due to malrotation of the intestine and were not readily apparent upon initial evaluation. Two children had large mesenteric cysts and another had a coagulated abscess secondary to an old bowel perforation.

The biliary system was responsible for the mass in four patients (7%). These included a large primary carcinoma of the liver, a hepatic cyst associated with meconium ileus and a child with Gaucher's disease. Another child had a large hamartoma.

The other masses consisted of an islet cell tumor of the pancreas, a malignant teratoma and a mucoculpos.

Although exploratory laparotomy eventually may clarify the etiology of a mass, inadequate preoperative information can result in an inappropriate incision and operative approach to the abnormality, thereby prolonging the surgical procedure and, perhaps, hampering a definitive solution of the problem. Occasionally, inadvertent disruption of important structures may cause an irreparable situation. The following cases illustrate the hazards of precipitous surgical exploration.

Case Reports

Case # 1. The patient presented at 3 months of age with a five-day history of irritability, temperature to 102 F and abdominal distention. A large mass in the left flank, extending to the pelvic brim, was noted. Laboratory studies included a urine analysis showing 15-20 WBC's/HPF; a hematocrit value of 30% and a white blood cell count of 22,000/cu mm with 53% neutrophils. An excretory

TABLE 3

OTHER ABDOMINAL MASSES

		%	No.	%
I. Gastrointestinal			7	50
A. Malrotation of gut	4	(29)		
B. Mesenteric cyst	2	(14)		
C. Coagulated abscess	1	(7)		
II. Hepatic			4	29
A. Liver carcinoma	1	(7)		
B. Hepatic cyst	1	(7)		
C. Gaucher's disease	1	(7)		
D. Hamartoma	1	(7)		
III. Other			3	21
A. Islet cell tumor of pancreas	1	(7)		
B. Teratoma (malignant)	1	(7)		
C. Mucoculpos	1	(7)		
Total			14	100

urogram was obtained and showed the left kidney to be displaced anteriorly, laterally and downward (Fig. 1). However, the films were of poor quality.

The radiologic consultants believed that the most likely diagnosis was neuroblastoma, and immediate surgical intervention was carried out without further urological evaluation.

The abdomen was opened utilizing a transverse

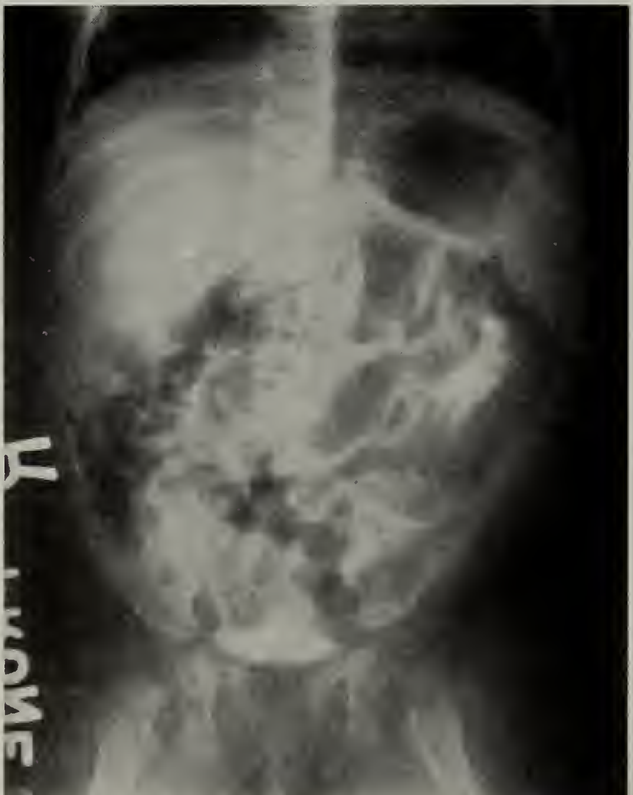

Fig. 1 The visible portion of the collecting system is displaced downward and laterally by the large hydronephrotic upper pole segment.

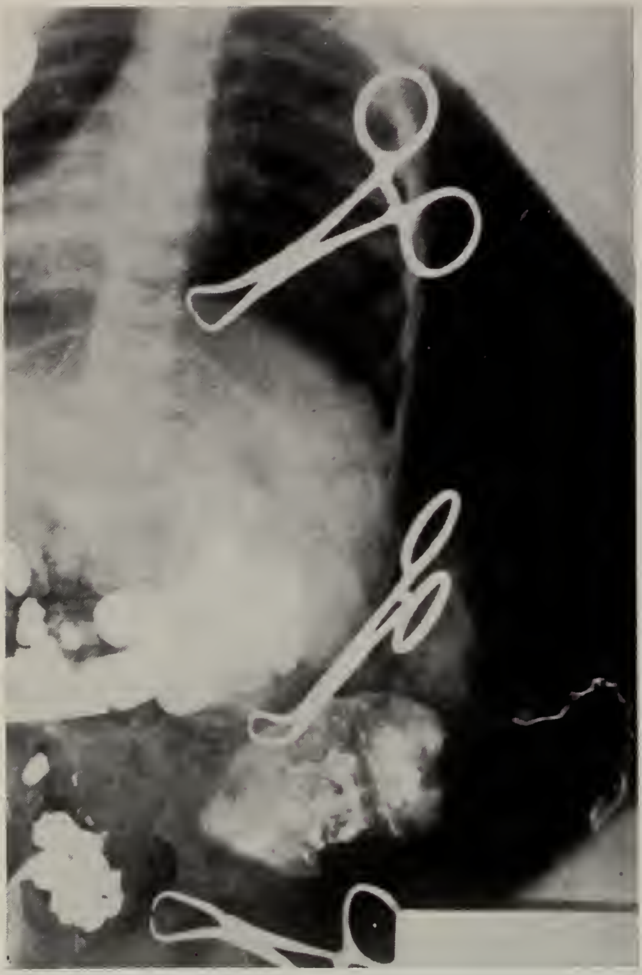

Fig. 2 There is retained barium from an ill-advised preurographic study. The large, dilated ureter can be seen filled with contrast material during an intraoperative radiologic examination.

Fig. 3 The transected urethra can be seen.

incision above the umbilicus. After tedious exploration, it gradually became apparent that the mass arose from the kidney, and the retroperitoneum was opened. A tortuous ureter was found which led to a markedly dilated, duplicated upper collecting system segment. A heminephrectomy was performed through this inappropriate incision. The abnormal, duplicated ureter could not be traced to its fullest extent, and since the operative interval had been prolonged, the hydroureter was exteriorized. At a later date, injection of this ureteral-cutaneous fistula revealed that the ureter entered the urethra at the junction of its proximal and middle thirds. One month after the first procedure, the ectopic left ureter was removed and the child recovered uneventfully. It is apparent that more complete urographic studies could have delineated the true nature of this mass and, if a more suitable operative approach had been used, the problem could have been solved with one surgical procedure.

Case # 2. The patient presented at 14 months of age with a three-month history of a mass in the left upper quadrant which appeared intermittently. There was sporadic vomiting and irritability during the appearance of the mass. Physical examination revealed that the mass in the left upper quadrant was moveable and nontender. It was noted to change in size. Laboratory studies included a negative urine analysis, hematocrit reading of 29% and blood urea nitrogen 88 mg/100 ml. An excretory urogram revealed a dilated right collecting system with diminution of excretion and no excretion of the left. An upper gastrointestinal (GI) series demonstrated a left mid-abdominal mass extrinsic to the GI tract.

Diagnoses included duplication of the intestines, vitteline duct cyst or a neoplasm of unknown etiology. Urinary tract abnormalities were not considered.

At surgery, what was believed to be small intestine was dissected out. When this led to the kidney, it became apparent that it was a dilated redundant right ureter (Fig. 2). An excision of the redundant ureter was carried out and a right cutaneous ureterostomy was performed.

More complete diagnosis in this case might not have changed the eventual development of chronic renal insufficiency, but immediate nephrostomy drainage, perhaps, could have permitted total reconstruction of the urinary tract which might have ameliorated the poor prognosis. This case again points up the need to consider the urinary tract as a source of any unexplained abdominal mass.

Another example was a child who presented with a lower abdominal mass. In attempting to remove this mass, which was an utricular cyst, the urethra was transected. This required an unanticipated urethral reconstruction (Fig. 3).

Discussion

Melicow and Uson, in their 22-year survey of 653 abdominal masses in children, clearly demonstrated that medical conditions, such as leukemia, Hodgkins and hepatosplenomegalies in which a mass was palpable, usually were easily recognizable and constituted well over half of all masses. Their evaluation of the remainder of the masses revealed a distribution of urological etiologic conditions quite similar to our findings. Benign conditions outnumbered malignancies, and hydronephrosis is invariably the single most common cause of an abdominal mass in a child.

The diagnostic dilemma presented by abdominal masses in children often engenders a sense of urgency which can provoke hasty and incomplete study of the patient. It must be emphasized that the majority of these masses arise from the genitourinary tract and that complete urological evaluation is needed to avoid misdiagnosis or precipitous exploratory surgery and its attendant hazards.

Summary

An analysis of 60 children in whom an abdominal mass of uncertain etiology was the presenting complaint revealed that the majority (77%) arose from the genitourinary tract. The need for complete urological study in such circumstances is clearly apparent and should be a mandatory precursor to surgical exploration.

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Diagnosis of Diabetes

(Continued from page 277)

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One of three newly established Bone Tumor Referral Centers in the nation is located in the Department of Radiology at the University of Missouri Medical Center-Columbia. Designed to help physicians in the diagnostic evaluation of bone tumor X-rays, the Centers (also in Los Angeles and Philadelphia) were established at the recommendation of the Commission on Cancer of the American College of Radiology.

A physician wanting assistance in the diagnosis of bone tumors can use the Center by sending the problem X-rays along with the résumé of the patient's history and findings. The radiograph will be reviewed and the report sent to the doctor by mail or long distance telephone if desired or indicated. There is no charge for this service. Consultation will include the evaluation of the roentgenograms indicating rate of growth and predicted histologic nature and an evaluation of the histologic material, if available, by a skilled pathologist.

Radiographs and patient résumés may be sent to Dr. Gwilym S. Lodwick, Professor and Chairman of the Department of Radiology, University of Missouri Medical Center, Columbia, Mo. 65201.

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The Vagaries of Splenectomy

A 15-Year Experience With 302 Cases

The first elective operation at the new University of Missouri Medical Center was a splenectomy performed on Sept. 18, 1956 for idiopathic thrombocytopenic purpura. In the ensuing 15 years, 302 spleens have been removed at the University Hospital. With the passage of time, a number of factors, including broader indications for splenectomy, have gradually increased the frequency of the operation at this hospital. In this paper, we present a review of some of our experiences with splenectomy and take a critical look at some of the indications, complications and morbidity associated with the procedure.

Material

The youngest patient requiring a splenectomy was a one-week-old girl with hemolytic anemia. An 85-year-old man upon whom a vagotomy and pyloroplasty was being performed was the oldest patient in the series. "Incidental" splenectomy was done for iatrogenic reasons. From the opening of the hospital on Sept. 16, 1956 until Dec. 31, 1971 there were 302 splenectomies. One hundred and sixty-four were males; 141 were females. More than half of splenectomies were performed in patients over 50 years of age as indicated in Table 1.

Three hundred and two splenectomies have been performed at the University of Missouri Medical Center during a 15-year period with an overall mortality of 11.5%. This article presents a review of some of these experiences and takes a critical look at the indications, complications and morbidity associated with the procedure. Doctor Stephenson is Professor of Surgery and Mr. Mechlin is a Second-Year Medical Student at the University of Missouri Medical Center.

TABLE 1
AGE DISTRIBUTION OF ENTIRE SPLENECTOMY SERIES
SEPT. 1956-JAN. 1972

Age	*Females*	*Males*	*Total*
0- 9	13	9	22
10-19	20	17	37
20-29	15	24	39
30-39	8	14	22
40-49	12	8	20
50-59	34	30	64
60-69	30	40	70
70-79	7	18	25
80-89	0	3	3
Total	139	163	302

The 302 spleens were removed by 53 surgeons, 41 of whom were serving in a residency capacity. Each of several residents removed between eight and 11 spleens. Most commonly, however, the average resident removed either five or six spleens. Thirty-two spleens were removed by one attending physician.

The technique of splenectomy varied among the individual surgeons. Operative incisions were of a left subcostal or transverse nature in 154 cases. One hundred and thirty-eight had a longitudinal paramedian or midline incision. The remainder had an extension of a right subcostal or transverse incision or a thoracoabdominal incision. The incision should allow a minimum of tension on the vascular pedicle as the spleen is delivered. It should provide for an adequate search for accessory spleens when their removal is indicated. It is the author's practice to individually and doubly ligate the splenic vessels and only after the spleen has been mobilized out of the splenic bed medially and superiorly. In this fashion, one can easily visualize the tail of the pancreas and splenic flexure of the colon and, thus, reduce likelihood of their injury.

TABLE 2

GENERAL INDICATIONS FOR SPLENECTOMY—302 CASES

Trauma	
Iatrogenic	72
Non-iatrogenic	56
Hematopoietic disorders	115
En bloc dissections	45
Splenic artery aneurysm	5
"Spontaneous" rupture	3
Miscellaneous	6
Total	302

TABLE 3

CAUSES OF TRAUMATIC RUPTURE OF THE SPLEEN

Athletic injuries	4
Falls	5
Automobile accidents	35
Motorcycle accidents	2
Farm accidents	
Hay baler	1
Tractor	2
Gunshot wounds	4
Stab wounds	3
Iatrogenic factors	72
Total	128

Drains were placed in the left upper quadrant and brought out through a separate stab incision on the left side in 151 cases or exactly one-half of the series. A single Penrose drain was used in 76 instances. In 36 patients, a Penrose drain was combined with a sump drain. In 18 cases, two Penrose drains and a sump drain were used. One half of the total series had no drainage of the splenic bed.

Discussion

During the 15-year period, more spleens (almost 40%) were removed for reasons of trauma than any other cause. From Table 2, it is apparent, however, that once the iatrogenically injured or "incidental" splenectomies are subtracted from the trauma group, the majority of spleens were removed for hematological disorders. More than one third (38%) of the spleens are in this category. A sizable number were removed with en bloc dissections during surgery for such malignancies as cancer of the pancreas, stomach and colon. Five splenic artery aneurysms prompted splenectomy and three spleens were found ruptured in the absence of any known disease or trauma.

By far the most common etiologic factor in traumatic rupture of the spleen involved motor vehicle accidents. Only two cases occurred from motorcycle accidents. Table 3 lists the various factors involved in trauma, excluding the iatrogenic injuries. Although much has been written recently about the value of peritoneal dialysis as a diagnostic adjunct for the early diagnosis of ruptured spleen, we have generally not found it necessary to employ this modality. Similarly, splenic arteriography has been used only in a rare instance. While we recognize that both of these techniques can be most helpful, we have been pleased with the high degree of accuracy in obtaining evidence of intra-abdominal hemorrhage from a paracentesis. The author favors a midline paracentesis, using an intercath as pictured in Fig. 1. Gray has documented that as little as 25 cc of unclotted blood can be detected from a paracentesis if properly employed.[1] On occasion we have had the patient assume a knee-chest position as pictured in Fig. 2. In addition, one should leave the catheter in place without suction for several minutes if a negative tap is first obtained. Blood may rise in the catheter via capillary action.

The most frequent *single* indication (24%) for spleen removal in this series relates to the "incidental" splenectomy provoked by the accidental injury to the spleen or hilar vessels during such misadventures as those stemming from positioning of the retractor or because of evulsion of the splenic capsule by traction on the peritoneal attachments or supporting ligaments.

The most frequent operation resulting in iatrogenic injury to the spleen is a vagotomy. Twenty-nine of the 72 cases included vagotomies. A gastrectomy was implicated in 18 instances, repair of diaphragmatic hernia in nine and an adrenalectomy in three cases. During

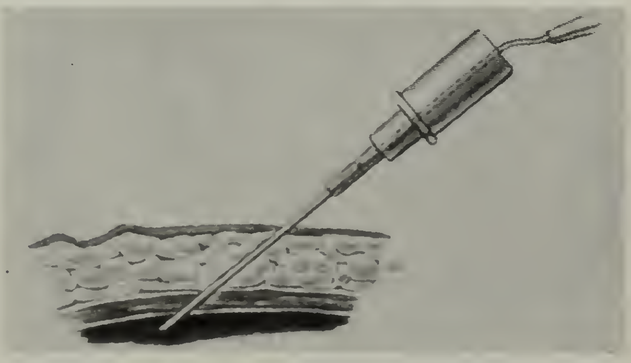

Fig. 1 A midline paracentesis is performed with a size 14 to 16 intracatheter needle. As soon as the abdomen is entered, the plastic tubing can easily be advanced and the needle withdrawn.

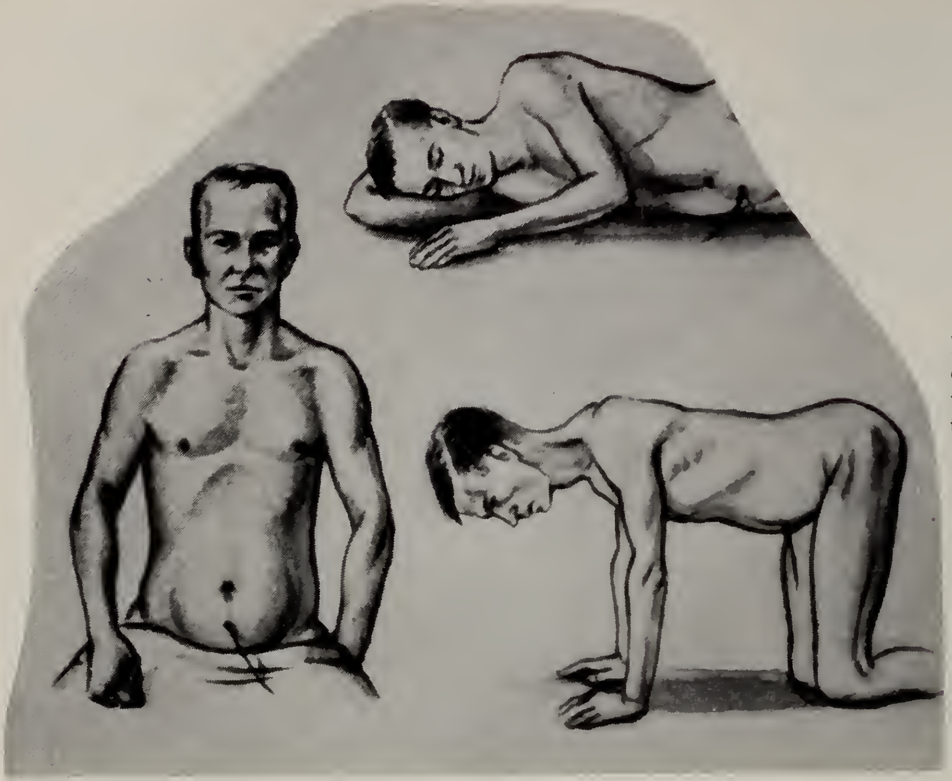

Fig. 2 Once the catheter has been advanced, the likelihood of a positive tap is increased with positional changes as pictured.

downward traction of the stomach, the lienophrenic ligament is easily torn as is the lienogastric ligament. The lienocolic ligament was torn in at least five cases during a colon resection.

Fig. 3 graphically denotes the yearly relationship of the iatrogenic splenectomy to the frequency of splenectomies performed for all indications. Until the last four years, the two roughly progressed in parallel. In 1971, the frequency of "incidental" splenectomies was slightly over 14%, a decrease of 10%.

The overall frequency and importance of inadvertent injury to the spleen during operation for other reasons has been generally ignored or unrecognized until the last decade. Many large splenectomy series do not include or make reference to this group of splenectomies done for iatrogenic reasons. Quan called attention to this group of cases in 1949.[2] Only lately, however, is it apparent that iatrogenic injury to the spleen represents a significant group of cases. Table 4 indicates the relative frequency of iatrogenic splenectomies in other institutions.[3-11] Frequently one fifth to one fourth of all splenectomies are in this category.

Of the iatrogenic injuries to the spleen necessitating splenectomy, 34 different physicians were listed as surgeon. No surgeon experienced more than three such cases. A member of the residency staff was listed as surgeon in 26 instances and the attending physician in the remaining eight.

What harm is done by removing an apparently normal spleen? Possibly very little. However, Devlin has reviewed the morbidity associated with accidental injury to the spleen occurring during abdominal surgery.[10] He is convinced there is significant increased morbidity associated with accidental splenic injuries. For one thing, the hospital stay was significantly greater in the splenectomies group (29.7 days as compared with 19.4 in the controls). Certainly, the operative time usually was lengthened. In reviewing the splenectomies for accidental injury

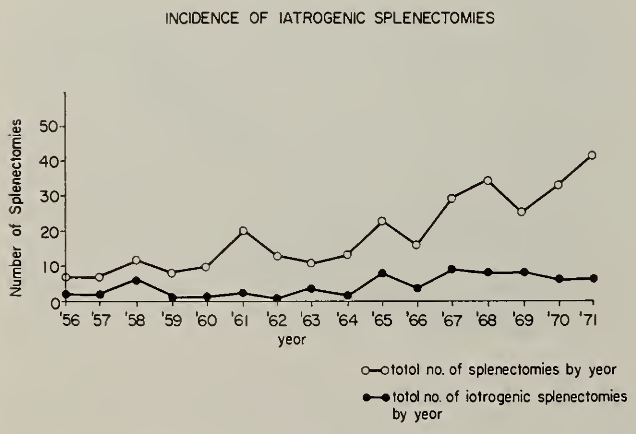

Fig. 3

TABLE 4

IATROGENIC RUPTURE OF THE SPLEEN

Author	*Year*	*Institution*	*No. of Splenectomies*	*No. of Iatrogenic Splenectomies*	*%*
Quan	1949	Massachusetts General Hospital	70	13	18.5
Zollenger	1960	Ohio University	748	23	3
Calamel	1963	Colorado General Hospital	50	9	18
Finney	1963	Johns Hopkins	116	13	11
Peck	1964	University of Pittsburgh	95	22	23
Rick	1965	Letterman General Hospital and University of California	925	242	26
Lilkerman	1968	Albany Medical Center Hospital	436	176	40
Bostrom	1969	University of Vermont	115	16	14
Devlin	1969	St. Thomas-London	275	70	25
Olsen	1970	University of Michigan	584	121	21
Stephenson	1971	University of Missouri	302	72	24

in the first eight years at our hospital, we noted that more than 50% of these splenectomy cases required at least three units of whole blood. In numerous instances, the injury to the spleen was not apparent until considerable blood loss had occurred. In addition, Devlin reports a greatly increased incidence of postoperative sepsis in the splenectomized cases as compared with a control group. Particularly was this most marked when wound sepsis and abscess formation were compared. In our own group of 72 cases, there were four deaths. Although the deaths could not be directly ascribed to the removal of the spleen, most likely they were related to the underlying disease process requiring operation. In addition, there were two subphrenic abscess formations in the iatrogenic group.

The nature of the abdominal incision appears to have little definite influence in relationship to the injury of the spleen as 32 of the patients were being operated on through a transverse or oblique incision and 40 through a longitudinally placed incision.

Olsen and Beaudoin, in discussing surgical injury to the spleen, estimate that surgical injuries necessitate 23% to 40% of splenectomies.[11] Out of 167 splenectomy patients for iatrogenic reasons, 20 serious complications occurred in their series. Four patients died as a result of the complications. These complications included seven subphrenic abscesses, five pancreatic fistulae, one pneumothorax, one thrombocytosis and two drain tract infections. One patient died from an ischemic gastric remnant, one from delayed hemorrhage and one from uncontrolled hemorrhage.

What about the long term effects of splenectomy? Although the spleen's role in the antibody response and the relationship to the development of infection is not clearly defined, Haller suggests that there is little to support a unique role for the spleen in the overall resistance to infection; but the spleen should be viewed as an important component in the total reticuloendothelial system.[12] Since the spleen represents a quite significant volume of the reticuloendothelial system in the newborn and infant, a greater impact on the immune mechanism may be expected in this age group.

Although this report will not discuss in detail the various hematologic entities requiring splenectomy, it is of interest that in 114 cases, the spleen was removed for hematologic problems. The greatest number of these included a group of 30 patients with idiopathic thrombocytopenic purpura. Ten patients had splenectomies for hereditary spherocytosis and six patients had congestive splenomegaly. Two patients had their spleens removed for Gaucher's disease and six for Felty's syndrome.

In 1928, W. J. Mayo reported 500 splenectomies.[13] In only one instance was the spleen removed for Hodgkin's disease. Our series reflects current practices in the management of Hodgkin's disease with 16 spleens being removed for that disease. This upsurge in spleen removal in Hodgkin's disease is motivated by the desire to accurately stage the disease so that optimum treatment may be provided. Along with splenectomy, liver and multiple lymph node biopsies contribute more accurate information than do nonexploratory techniques. Should supervoltage radiation be elected as a treatment of choice, removal of the spleen eliminates need for irradiation of this frequently involved organ. Irradiation can be concentrated on areas of actual disease, thus eliminating the danger of excessive renal and pulmonary irradiation damage. At the time of operation, metal clips may be placed in the area of actual tumor involvement to guide the radiotherapist. In addition to the hypersplenism often developing with Hodgkin's disease, splenectomy also may prevent problems related to the patient's inability to tolerate myelosuppressive treatment.

A significant additional group of patients requiring splenectomy was comprised of those from whom the spleen was removed during an en bloc dissection. Altogether, 44 spleens were removed with en bloc dissection, 26 of them with procedures for surgical removal of cancer of the stomach. Pancreatic procedures added another four and colon lesions three.

MORTALITY

There was a mortality rate of 11.5% in the 302 splenectomy patients. These 35 deaths all occurred within a 30-day period following the operation. There were 22 male and 13 female deaths. Only five deaths occurred within 24 hours of the operation. Nineteen deaths occurred within the next two weeks and 11 within the third and fourth weeks. Of the 13 female deaths, all but two were in patients over 40. Among the male deaths, however, eight occurred before age 40 and were most frequently due to trauma.

Bostrom and Page report an 11% mortality in a group of 115 splenectomies, including those done for iatrogenic reasons.[9] Olsen, in his series of 584 patients over an almost similar period of time, reports 87 patients (14.7%) dying within 30 days of splenectomy.[11] This latter group also includes those spleens removed for iatrogenic reasons.

Overall, more than a third of all deaths were due to serious trauma, especially from automobile accidents. Almost 24% of the trauma victims requiring splenectomy died, usually as a complication of serious head or intra-thoracic injuries. In considering 248 instances of traumatic rupture of the spleen, Lieberman notes a mortality rate of 26%.[8]

The second largest group of deaths occurred in those patients whose spleens were removed during an en bloc dissection for malignancy. Nine of these patients died within the first 30 days. There were seven deaths due to hematopoietic disorders requiring splenectomy and two deaths following splenorenal shunt. As mentioned previously, there were four patients who died in the iatrogenic splenectomy group. One of these patients died 17 days postoperatively following a pulmonary embolism and an anastomotic leak. A second patient died 18 days postoperatively following complication of a vagotomy and pyloroplasty procedure, and two additional patients died on the second postoperative day from cardiac complications.

TO DRAIN OR NOT TO DRAIN?

Surgeons differ in their attitudes and practice on the use of drainage of the splenic bed following splenectomy. Probably, most would agree on drainage in the event that pancreatic injury is suspected. Some surgeons, however, drain the splenic bed almost routinely as a prophylactic measure against development of a subphrenic abscess. Retrospective studies by a number of authors recently tend to question too frequent employment of drains.

Cohn, at Harvard's Department of Surgery, analyzed data from 130 splenectomy patients and concluded that drainage of the splenic bed actually enhances the possibility of local infectious complications following splenectomy.[14] In fact, infectious complications occurred in 55% of the drain group and in only 5% of the non-drain group. He suggested that bacteria actually pass in retrograde fashion through the drain tract to the otherwise potentially sterile splenic bed. Cerise confirmed this suspicion experimentally in rabbits and concluded that pathogenic organisms can and do move down a drain to cause intraperitoneal infection.[15] A drain-incurred morbidity may begin almost in the immediate postoperative period, as test organisms were recovered in cultures of the splenic bed within 24 hours of splenectomy although contamination of the splenic bed is proportional to the period of exposure to drainage. In addition, we suspect that the intermittent positive-negative pressure created by movement of the diaphragm facilitates an inward current from outside the peritoneal cavity.

In an assessment of clinical material during a ten-year period at the Charity Hospital in New Orleans, Cerise reports that 29 of 559 splenectomy cases developed a left subphrenic abscess. Twenty-eight of these 29 patients had been drained. Further, indictment of drains as a source of contamination in the splenic bed is provided by Olsen and Beaudoin who report on 584 patients undergoing splenectomy at the University of Michigan Medical Center and Ann Arbor Veterans Administration Hospital during a ten-year period.[16] Most surgeons contributing to the series used drainage prophylactically for every patient as 497 patients were drained. In only 87 patients was the drain omitted. The drain was permitted to remain in the left upper quadrant for an average of 7.2 days. Of the 228 patients who had a prophylactic drain for "sterile" splenectomy, the gastrointestinal tract was not entered and there was no evidence of another source of infection. A significant infection due to the drain developed in 20 patients. This included ten who developed a subphrenic abscess, four of whom eventually died. No significant local infection or fluid under the left hemodiaphragm was observed in 85 of the 87 patients in whom drains were not used. One of these patients developed a subphrenic abscess which was not thought to be due to the splenectomy but related to the total gastrectomy and transverse colostomy for a reticuloendothelial cell sarcoma. The second patient had received an earlier unrecognized injury of the spleen. This was the only case of unsuspected contiguous organ injury occurring in the entire series.

In our series, 42 patients developed postoperative sepsis or fever of unknown origin following splenectomy (Table 5). A subphrenic abscess was more than three times as frequent in patients drained versus those not drained. Likewise, there were 11 wound infections in the drain group versus three in the undrained. In a breakdown of the 14 cases developing a subphrenic abscess, six of the subphrenic abscesses developed in association with an en bloc dissection; two followed traumatic laceration of the spleen; three were in patients with hematologic disorders; one followed resection of the splenic artery aneurysm; and two patients who developed a subphrenic abscess had iatrogenic injuries of the spleen. It is interesting to note that ten of the 14 patients with subphrenic abscess were over 50 years of age. They were equally divided between male and female patients. A subphrenic abscess developed in three patients drained at the initial operation for "sterile" splenectomies and in one not drained. Six of the seven subphrenic abscesses in possibly contaminated splenectomies had been drained. The remaining three patients drained were cases of probable contamination at the time of surgery, i.e., colon resection. Wound infections developed in seven "sterile" splenectomies which were drained and in two not drained. The patients running a fever of unknown origin with possible subphrenic inflammation were almost equally divided between the ones drained and not drained as far as sterile or uncontaminated splenectomies were concerned. As mentioned earlier, 151 patients had splenic bed drainage, the majority with either one (76 cases) or two (26 cases) penrose drains.

TABLE 5

COMPLICATIONS

	Drained	*Not Drained*
Subphrenic abscess	11	3
Drain tract infection	1	0
Wound infection	11	3
FUO	8	6
No complications	120	139
Total	151	151

A total of 40 patients received steroids pre- and postoperatively in the total series. The incidence of infection in such cases was low. Two patients with idiopathic thrombocytopenic purpura developed a subphrenic abscess while on steroid therapy.

SUMMARY

Three hundred and two splenectomies have been performed at the University of Missouri Medical Center during a 15-year period with an overall hospital mortality of 11.5%. Seventy-two iatrogenic splenectomies are included—the most frequent single reason for a splenectomy. Hematopoietic indications accounted for 38% of all spleens removed, and trauma (excluding iatrogenic) and en bloc dissections were the next most frequent indications. Within the past two years, an increasingly large number of spleens have been removed for Hodgkin's disease, which is currently the most common indication for a planned splenectomy.

Routine postoperative splenic bed drainage may be questioned in view of data suggesting a high incidence of postoperative infections possibly related to the drainage procedure. The advantage of drainage in uncontaminated splenectomies and in those with no suspected injury to the pancreas is not evident. If factors are present which suggest a need for drainage, great care should be taken to insure sterility about the drain site and to remove the drain at the earliest possible time.

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(Continued on page 291)

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Treatment of the Child With Serious Congenital Heart Disease

'The Aggressive Approach'

To an increasing degree during the past two decades, developments in the field of congenital heart malformations have persuaded pediatricians and thoracic surgeons to become more concerned about serious congenital heart disease during infancy and childhood.

The mortality among patients with congenital heart disease is highest in the first month of life.[1, 2, 3] It is estimated that one quarter to one third of all infants born alive with cardiac anomalies are dead before that time if they are left untreated. Of the 7,000 infants with congenital heart disease who die during infancy in the United States each year, many have surgically amenable defects. Because it is frequently impossible to establish a definitive anatomical diagnosis by clinical examination, roentgenograms and electrocardiograms in infants, urgent cardiac catheterization and selective angiography are required to allow selection of patients for surgery. This report describes our experience with 160 consecutive infants and children who have undergone such investigative studies at the University of Missouri Medical Center.

Materials and Methods

Cardiac catheterizations in 160 infants and children were performed at the University of Missouri Medical Center from Jan. 1, 1970 to Aug. 31, 1971 (Table 1 & Fig. 1). The age distribution was between 12 hours and 16 years. Cardiac catheterization was never denied any infant or child because of poor general condition.

TABLE 1

PEDIATRIC CARDIAC CATHETERIZATIONS
JAN. 1, 1970-AUG. 31, 1971

Age	*No.*
< 1 year	58
1-16 years	102
	160

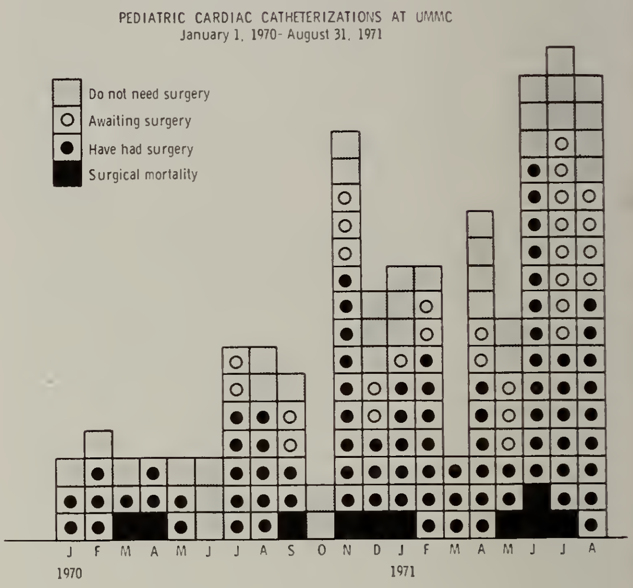

Fig. 1

After careful physical examinations, chest roentgenograms and electrocardiograms had been done on all the patients, cardiac catheterization was frequently found to be necessary to establish a complete anatomical diagnosis (Table 2).

All patients were fasted for four hours prior to the catheterization. No sedation was given to infants under one month of age. A sedative (25 mg Demerol, 6.25 mg Phenegan® and 6.25 mg Thorazine® per/cc) was given in a parenteral dose of 1 cc per 20 lb to those over one month of age. Half of this dose was given to cyanotic patients and patients with severe congestive heart failure. No patient received general anesthesia.

During the procedure, body temperature was maintained by controlling the room temperature in the catheterization laboratory. Metabolic acidosis was corrected when necessary with sodium bicarbonate throughout the procedure.

Patients under 10 kg body weight had cut-

TABLE 2

CONGENITAL CARDIAC DEFECTS FOUND AT CATHETERIZATION

Diagnosis	< *1 yr*	*1-16 yrs*
Ventricular septal defect	4	23
Pulmonary stenosis	2	23
Tetralogy of Fallot	4	18
Patent ductus arteriosus	6	12
Transposition of the great vessels	10	1
Coarctation of the aorta	6	3
Pulmonary atresia	6	0
Endocardiac cushion defect	0	6
Congenital mitral insufficiency	2	2
Tricuspid atresia	3	1
Atrial septal defect	2	3
Hypoplastic left heart	2	1
Agenesis of left pulmonary artery	4	0
Anomalous pulmonary venous drainage	1	1
Aortic stenosis	1	6
Single (common) ventricle	1	1
Truncus arteriosus	1	1
Coronary arteriovenous fistula	1	0
Endocardiac fibroelastosis	1	0
Vascular ring	1	0
	58	102

downs in the right groin for insertion of the catheters; older patients had percutaneous insertion of catheters. Right and left heart catheterization was performed on all the patients. Right heart catheterization was performed through the long saphenous or deep femoral vein. If the left side of the heart was not entered through an interatrial communication, a ventricular septal defect or patent ductus arteriosus, the femoral artery was used for retrograde left heart catheterization. We did not catheterize the umbilical vessels in any patient. Pressures were obtained with a Statham (p23Db) strain gauge on a photographic recorder. Oxygen saturation of blood from the heart chambers was determined with an Instrumentation Laboratories oximeter. Single plane cineangiograms at a speed of 60 frames per second were performed in all patients. Renografin® (60%) in the total dose of 4 cc per Kg was used as the angiographic contrast medium.

Whenever surgery was indicated in a distressed infant, it was carried out as soon as possible, frequently within an hour or two following cardiac catheterization. Various palliative or definitive surgical procedures were carried out on any infant when prospects of significantly improving arterial saturation or congestive heart failure could be hoped for. Balloon atrial septostomy (Rashkind's procedure) was performed by the pediatric cardiologist at the end of the catheterization procedure in patients who require adequate mixing at the atrial level to survive (Table 3).

TABLE 3

BALLOON ATRIAL SEPTOSTOMY (RASHKIND'S PROCEDURE)

Complete transposition of the great arteries	3
Pulmonary valve atresia	1
Tricuspid atresia	1
Total anomalous pulmonary-venous drainage	1

Mortality

Catheterization Mortality

No patient died during or within 24 hours after the catheterization procedure.

Medical Mortality (Table 4)

Two infants with hypoplastic left ventricle died two days after the catheterization procedure. These patients had inoperable cardiac lesions. One infant with pulmonary atresia and a patent ductus arteriosus died on his way to the operating room because the patent ductus assumingly closed unexpectedly.

Surgical Mortality (Table 5)

Of the 101 cardiac procedures performed, ten of the patients died (10%). One infant who had patent ductus arteriosus ligation died, and at autopsy was found to have bronchopulmonary sequestration of the right lung. The three patients who died after Waterston-Cooley anastomosis attempts had asplenia syndrome, marked hypoplasia of the pulmonary arteries and pulmonary valve atresia respectively.

Of the 7,000 infants with congenital heart disease who die during infancy in the United States each year, many have surgically amenable defects. Urgent cardiac catheterization and selective angiography frequently are required to allow selection of patients for surgery. This report describes the authors' experience with 160 consecutive infants and children who have undergone such investigative studies at the University of Missouri Medical Center from Jan. 1, 1970 to Aug. 31, 1971. The authors are from the Departments of Pediatrics and Surgery at the Medical Center.

TABLE 4

INFANTS WHO DIED WITHOUT CARDIAC SURGERY

Diagnosis	*No.*
Hypoplastic left heart	2
Pulmonary valve atresia	1

One infant with complete transposition of the great arteries died after a Blalock-Hanlon atrial septostomy. One patient with mitral valve atresia died after open atrial septostomy. One infant with coarctation of the aorta died two weeks after surgery because of severe tracheal stenosis secondary to tracheostomy.

Discussion

The group of patients described herein were infants and children with congenital heart disease of life threatening proportion. It is not surprising that in this series, as well as others, lesions incompatible with long life are frequent.[3–9] Relatively benign cardiac abnormalities, such as small isolated ventricular or atrial septal defects, are less frequently encountered in infants even though they are common in adults and older children.

Since cyanosis and severe congestive heart failure in the newborns usually do not improve with medical management alone, failure to establish an early definitive anatomical diagnosis by cardiac catheterization and angiocardiography can seriously compromise an infant's chance of survival. The mortality of infants at cardiac catheterization has been reported to vary from 10% to 19%. In this group, death after catheterization occurred in two patients who were moribund and had inoperable complex cardiac malformations (hypoplastic left ventricle) and one patient with pulmonary atresia who died on his way to the operating room.

TABLE 5

Operations	*No. of Operations*	*Mortality*
Patent ductus arteriosus ligation	15	1
Waterston-Cooley shunt	14	3
Pulmonary valvulotomy	15	0
Total correction of tetralogy of Fallot	9	3
Resection of coarctation of the aorta	8	1
Pulmonary artery banding	9	0
Rashkind's balloon atrial septostomy	6	0
Blalock-Hanlon atrial septostomy	5	1
Repair of ventricular septal defect	5	0
Repair of ostium secundum defect	3	0
Repair of endocardiac cushion defect	3	0
Open atrial septostomy	1	1
Aortic valvulotomy	1	0
Resection of subaortic membrane	3	0
Ligation of coronary A-V fistula	1	0
Correction of PAPVR*	1	0
Resection of vascular ring	1	0
Pneumonectomy	1	0
	101	10

* Partial anomalous pulmonary venous return.

The complications of catheterization were infrequent. Following cannulation of the femoral vein and artery, small babies have frequently developed coldness, cyanosis and swelling of the catheterized lower extremity for a few days.[10, 11] In none of our patients has this been a lasting problem.

We believe that the mortality from cardiac catheterization in infants can be minimized by performing the shortest possible investigation required to arrive at an adequate anatomic diagnosis, by assuring adequate ventilation, by prevention of hypothermia and by correction of metabolic acidosis during the catheterization procedure.

The operative mortality in our series was low and similar to other reported series.[10, 11] However, these mortalities are highest, as might be expected, in operations on patients who are small, sick and afflicted with severe cardiac anomalies. But when viewed in the light of life expectancy of symptomatic congenital heart disease at this age, we are encouraged to seek care and definitive diagnosis for these infants and children as soon as possible. Often the success of a surgical procedure depends upon the carrying out of an operation as soon as possible after a definitive diagnosis is established and before irreversible deterioration has occurred.

Summary

One hundred and sixty infants and children have undergone cardiac catheterization at the University of Missouri Medical Center from Jan. 1, 1970 to Aug. 31, 1971. Fifty-eight were under the age of one year. One hundred and twenty-three of the 160 patients were found to have operable cardiac lesions. One hundred and one cardiac procedures were performed on 94 of these patients and the rest are awaiting surgery. There were no cardiac catheterization mortalities. However, two infants died because of malignant congenital cardiac defects and could not be helped by surgery.

Early investigation and early surgery, often of palliative nature, has yielded a significant num-

ber of surviving infants and children (84 of 94).

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Vagaries of Splenectomy

(Continued from page 287)

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In Memoriam

Balazs, Karl John, M.D., Port Charlotte, Fla., a graduate of Washington University, 1921; member St. Louis Medical Society; age, 74; died Dec. 31, 1971.

Baumhardt, Edward E., M.D., Kansas City, a graduate of the University of Kansas, 1943; member Jackson County Medical Society; age, 55; died Jan. 1, 1972.

Luedde, Fullerton W., M.D., St. Louis, a graduate of St. Louis University, 1936; member St. Louis County Medical Society; age, 58; died Jan. 16, 1972.

Luter, Carter W., M.D., Butler, a graduate of Northwestern University, 1925; member West Central Missouri Medical Society; age, 72; died Feb. 4, 1972.

Schweitzer, Fred C., Jr., M.D., Springfield, a graduate of Washington University, 1943; member Greene County Medical Society; age, 54; died Feb. 6, 1972.

Hosto, Leland E., M.D., St. Louis, a graduate of Washington University, 1933; member St. Louis Medical Society; age, 67; died Feb. 14, 1972.

Wilson, Hester J., M.D., Kansas City, a graduate of the University of Kansas, 1921; member Jackson County Medical Society; age, 74; died Feb. 15, 1972.

President's Message

THE ESTABLISHMENT

Almost one year ago when I addressed the House of Delegates of the Missouri State Medical Association as your President-Elect, I recommended that we turn our attention to reducing the fragmentation which has occurred in organized medicine.

Accomplishments have been made in the past year. However, much remains undone. The expanded role of the specialty societies in the 114th Annual Session this month is a step forward. Furthermore, the Missouri State Medical Association has made an offer to statewide specialty groups to provide them with needed staff and facilities. This should be accomplished. A voice and vote in the House of Delegates for each of the specialty groups, students and house officers would further enhance solidarity.

Gerald L. Miller, M.D.

The unification of medicine is most important to all of us in the profession. However, unification and the solid front which it could provide in a time of crisis is only one of the many things which the Missouri State Medical Association can provide its members.

The February, 1972 issue of Missouri Medicine contained an enlightening article by the AMA's Tim Norbeck, pointing out what the American Medical Association does for its members. I hope you read it.

Recently, I read an article by James E. Bryan which outlines what medical society membership means to physicians. Mr. Bryan is a former executive administrator of the New York County and New Jersey State Medical Society. The article appeared in *Physician Management*.

The points which he made concerning the value of medical society membership is applicable to the Missouri State Medical Association, and I am taking the liberty of listing his ten benefits of medical society membership:

"1. The Medical Society represents you and your colleagues in public health and welfare programs.
"2. It interprets you, your training, your motives, your problems, your professional aims and objectives to the outside world.
"3. It tries to nurture a more favorable public attitude toward your profession by helping people to understand and appreciate medicine's contributions to the public welfare.
"4. It guides the development of medical practice in relation to other callings and economic groups.
"5. It protects your legal status as a doctor.
"6. It protects the public against exploitation by quacks and frauds and keeps medical competition on a professional plane.

“7. It controls the depredations of that tiny minority of doctors whose main interest is to make a fast fortune.

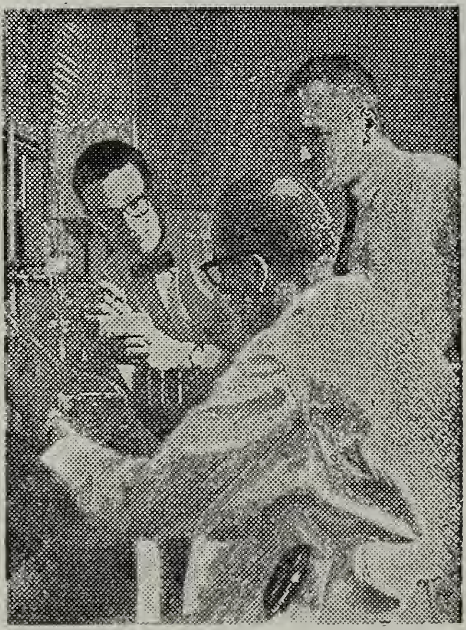
“8. It promotes, guides and molds the prepayment plans and other economic devices designed to help patients pay for your services at the least possible burden or sacrifice to themselves.

“9. It helps your profession to meet its collective responsibilities to the public and avoids the necessity of the public resorting to political devices to solve these problems.

“10. It helps you to survive as a responsible professional man in an increasingly interdependent and socialized society.”

The many responsibilities and benefits to the members outlined above can only be accomplished by a strong organized medicine, not by individual physicians. I find it morally unacceptable that so many physicians are apathetic to organized medicine and, in fact, resist its efforts in behalf of the profession. So much is being done for so many by so few—JOIN THE TEAM. The tithing of one hour per week per doctor to organized medicine would resolve the problem democratically.

I look forward to seeing you in Kansas City on April 6-9 for the 114th Annual Session of the Missouri State Medical Association.



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Woman's Auxiliary

A SPECIAL INVITATION

My year as President of the Woman's Auxiliary has come to an end. It has been a year filled with memorable associations and worthwhile accomplishments—a year for which I am sincerely grateful.

For their support and many courtesies extended to me and the Auxiliary, I express appreciation to MSMA President Gerald L. Miller, President-Elect Walter T. Gunn, the Council and Drs. Joseph L. Fisher, E. A. Stricker and Louis P. Hetlage of the MSMA Advisory Council. MSMA Executive Secretary Ray McIntyre and his entire staff also have been unfailingly kind and helpful. They will always have my gratitude.

Mrs. Frank J. Valach
President

I extend best wishes to Mrs. Keith D. Jones of Warrensburg who will be installed as President of the Auxiliary on April 8 in Kansas City. Mrs. Jones has interesting plans for the coming year, and I urge you again to extend to your wife our invitation to join us. We will especially welcome her at the following events:

Missouri's Medical Auxiliary Day at the Legislature

To date, more than 100 Auxiliary members from all over the state have made reservations for this day in Jefferson City to observe and learn about state government. The date is April 12. We will visit the House of Representatives and Senate and talk to our representatives. The day will include a tour of the Capitol Building, a luncheon and a tour of the historic Governor's Mansion. If your wife would like to be with us, please ask her to contact the MSMA office at 515 East High in Jefferson City or call 314-636-5151.

Spring Regional Workshops

Two exciting and interesting regional workshops have been scheduled:

April 17—Auxiliary Districts 1, 6, 7, 8 and 9 at the Howard Johnson Motel I-70 and Noland Road, Independence.

April 24—Auxiliary Districts 2, 3, 4 and 10 at Three Flags Restaurant in St. Charles.

Members in District 5 may attend either workshop. Both will feature outstanding speakers and learning sessions that will provide information in all fields. The meetings will begin at 10 AM and conclude at 2:30 PM. We hope your wife will make a special effort to attend.

ue

Maker of Medicine

Henry W. Gadsden,
Chairman & Chief Executive Officer, Merck & Co., Inc.

In my opinion, it is the responsibility of all physicians and medical scientists to take whatever steps they think are desirable in a law- and regulation-making process that can have far-reaching impact on the practice of medicine. Yet many events in the recent past indicate that this is not happening. For example, it is apparent from drug efficacy studies that the NAS/NRC panels gave little consideration to the evidence that could have been provided by practicing physicians.

There are several current developments that should increase the concern of practicing physicians about drug regulatory affairs. One is the proliferation of malpractice claims and litigation. Another is the effort by government to establish the relative efficacy of drugs. This implies that if a physician prescribes a drug other than the "established" drug of choice, he may be accused of practicing something less than first-class medicine. It would come perilously close to federal direction of how medicine should be practiced.

In order to minimize this kind of arbitrary federal action, a way must be found to give practitioners both voice and representation in government affairs. Government must be caused to recognize the essentiality of seeking their views. One of the difficulties today, however, is that there is no way for concerned practitioners to participate in the early stages of decision-making processes. They usually don't hear about regulations until a proposal appears in the Federal Register, if then. By that time a lot of concrete has been poured, and a lot of boots are in the concrete.

Physicians in private practice, and particularly clinicians, should press for representation on the advisory committees of the Food and Drug Administration, joining with academic and teaching hospital physicians and scientists who are already serving. Though practitioners may not have access to all available information, the value of their clinical experience should be recognized. Clinicians, for example, rightly remind us that difficulty in *proving* precise effects does not necessarily mean a drug is ineffective.

Unless practitioners are more involved in drug regulations, it will be increasingly difficult for the pharmaceutical industry and scientists elsewhere to make optimal progress in drug development. The benefit/risk ratio must be re-emphasized, and as part of this it must be acknowledged that benefit can come from the judgments of medical science as a whole. Even this concept, unfortunately, is not always accepted in drug regulatory processes. For example, if current medical opinion holds that an excess of total lipids and cholesterol in the blood is probably predisposing to atherosclerosis, and if a drug is discovered which reduces total lipids and cholesterol, the drug ought to be accepted *prima facie* as a contribution to medical science . . . until someone disproves the theory. The sponsor should not have to prove the theory as well as to develop and test the drug.

I feel a major new effort must also be made to erase the feeling of mistrust of medicine and of medicines that seems to be growing in the public consciousness. Triggered primarily by strident announcements in Washington, people are reading and hearing confidence-shaking things almost continuously. Although challenge and awareness are essential to medical advancement, our long-term goal is constructively to build, not destroy. This means strengthening patient-physician relationships based on mutual confidence and trust. And in matters of health policy, it means working toward participatory rather than adversary proceedings—where everyone with an interest and a capacity to contribute has an opportunity to be heard . . . and, if that opportunity is not spontaneously afforded him, he may seek it.

Opinion & Dialogue

What is your opinion, doctor?
We would welcome your comments.

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EDITORIALS

FAREWELL, LITTLE BEAVER

Little Beaver has gone to his ancestrial Happy Hunting Grounds. Edgar John Mothershead, our executive secretary, gently slipped away in his sleep during the early morning hours of February 25, 1972. Working late the preceding evening on the (St. Louis County) *Medical Society Bulletin* with our Editor, he seemed never to be in better spirits. Upon retiring, he was never to awaken again after 68 years on this earth.

Proud of his Osage ancestry, he spent many of his free hours lecturing on Indian Lore. Gratuities were all donated to his favorite charities. In the early 50s he broadcast daily programs on KXLW radio where, as Little Beaver, he presented interesting and colorful chats on nature and wild life. Recently, he was featured on a full page color spread in the *St. Louis Post-Dispatch* in his authentic feathered Indian headdress and regalia.

He was, in fact, a "little beaver"; dynamic, tireless, aggressive and always on the go. A connoisseur of art, his collection of western and Indian oils and prints includes some of the best of western artists.

As executive secretary of our Medical Society for the past 18 years and as publisher of our *Bulletin* since 1957, Edgar will long be remembered for his exacting efficiency and his passion for correct details. He will be sorely missed by every working member of our Society.

In recent years, he and his lovely wife, Ruth, travelled extensively, usually with medical tours. Japan and the Orient, North Africa, Greece, Hawaii, Majorca and Spain: all are well represented in his photographic evidence.

In 1968 he published ". . . OF MANY PENS," a book of stimulating short prose pieces and many poems, most of them written by Edgar himself. The pieces are witty, nostalgic, sassy, profound and sentimental, illustrating the many facets of his personality. This bit of humor. . . .

"Once upon a time there were two little rabbits—and that was a long, long time ago."

. . . is followed a few pages later by this haunting and prophetic poem:

"DREAM

Some day I want to ride again at sunset
To that westward sloping hill
And close my eyes and listen long
To silence; I know that all is still.
Some day I want to breathe that air,
Drink in the sweetness of the upturned sod,
Then, lifting up my face once more,
I hope to see the face of God.
. . . E.J.M."

Edgar was born in Franklin County, Missouri, November 30, 1903. He was educated in Union, Mo. public schools and attended Washington University. He was president of Western Press, Inc. for 32 years.

Edgar was a member of Clayton Lodge No. 601, A.F. and A.M., the Scottish Rite, 32nd degree, Moolah Temple, Arab Patrol, Medical Unit and the Creve Coeur Squires. He belonged to the Central Presbyterian Church. Masonic services were held at Lupton Chapel, 7233 Delmar Boulevard, at 8 PM Sunday, February 27, and burial services took place Monday, February 28, at 10 AM with interment in Memorial Park Cemetery.

To his devoted wife, Ruth, and to his brother, Eldon C. Mothershead, we, the members of the St. Louis County Medical Society, who share their loss, extend our deep sympathy.

Farewell, Little Beaver. May the Great Spirit take you into his fold.

MARTYN SCHATTYN, M.D.
Chairman Necrology Committee
St. Louis County Medical Society
St. Louis County Medical Society Bulletin

THE BABY BATHING BATTLE!

There is considerable controversy about the communications from the FDA on hexachlorophene, particularly in bathing infants in the nursery. It seems evident that neither those who are responsible for the well-being of the children in the hospital nor those who are writing directives from a desk somewhere can come up at this point with proven conclusions.

It is understandable that government officials who have received reports of possible toxicity would be desirous of taking safeguards as quickly as possible. What concerns the practicing physician, however, is the wide publicity given preliminary experimental work, portions of which are not convincingly comparable with the actual practice in a nursery.

A follow-up investigation of hospital use of hexachlorophene by the Center for Disease Control in the *Morbility and Mortality Report* of Feb. 26, 1972 states that 46% of the 300 hospitals surveyed had discontinued use of these preparations for whole-body bathing of the newborn after FDA issued the warning in early December, 1971. An additional 7%

have not used hexachlorophene-containing preparations in this way since June, 1971. The *M and M Report* released on March 10 does not have the results, but we expect an early report since the survey was being made by telephone. *Infectious Diseases* (Feb. 15, 1972) stated that there were reports of 22 hospital nurseries in several states with outbreaks of staphylococcal infections since stopping the use of hexachlorophene and it is presumed these are related.

Medical Tribune of Feb. 16, 1972 made note that FDA waited more than a year to report to physicians that some batches of digoxin were found to be substandard. It also indicated the fact that when generics were being recalled, the public was not given the reassurance that the brand, "Lanoxin" from Burroughs Wellcome, tested uniformly well.

While admitting we are singling out two episodes, it leads to some uneasiness to realize that FDA seemed to be quite deliberate when a finding favored a drug firm and unusually quick when the implications weighed against the industry. This is not to indicate that quick action should not be taken when patient safety is concerned, and I'm sure the Drug Industry would agree that financial loss by a firm cannot be considered when that safety is concerned.

However, it is hoped there is no subconscious bias involved when straight medical facts should be the guide to pronouncements on a drug. The fact is that both of these decisions seriously relate to patient safety. In one instance, the alternate of prescribing a particular brand drug instead of generic digoxin was available and in the other instance, no proven alternate is immediately available and it will be tragic if the decision is an incorrect one.

The practicing physician hopes there are no deaths or serious illnesses resulting from the hexachlorophene directive and publicity. He expects that serious thought will be given to planning a procedure for presenting physicians with balanced information in a way which avoids alarming the public with data that are preliminary.

JOSEPH V. FINNEGAN, M.D., *Editor*

LET THERE BE LIGHT

Perhaps most of us have a very definite idea about how the members of our General Assembly spend their time away from home in Jefferson City. That idea can range from being one of complete distrust to one of complete understanding of what a Representative or a Senator is faced with every day the Assembly is in session and, more important, every night there is a committee meeting.

Very few members of the general public ever appear before the committees of the General Assembly as observers or witnesses. Most of the voters back home rarely journey to Jefferson City to see their Representatives or their Senators in action. It is most unfortunate that every voter is not required by Constitutional amendment to attend at least one session of The House or Senate or one committee hearing so that they may come to a knowledge that being a Representative or a Senator is virtually an impossible job. To read all the bills introduced in one session is, for all practical purposes, a full-time job and to understand them and the added amendments makes the job of voting wisely on every issue almost impossible.

We have attended day sessions of our General Assembly. We have attended night committee meetings—meetings that involved men already tired from the trials and tribulations of a day in Session. We have heard their penetrating, fact developing questions. We have marveled at the scope of their interest. We have been surprised that so many already knew so much about the issue before them.

It is our earnest hope that in the future our Representatives and Senators be given a litle more cooperation and assistance. For their benefit and our benefit they need it. In our case—and we speak as only a part of the taxpaying, voting public and not as a member of an organized group—we would be much better off if we lit one candle of intellectual cooperation and quit damning the believed-to-be darkness that we do not understand.

ALLEN KLIPPEL, M.D.
St. Louis County Medical Society Bulletin

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County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

Buchanan County Medical Society

The Annual "Heart" meeting of the Buchanan County Medical Society was held on February 16 in the Empire Room of Hotel Robidoux in St. Joseph. Forty-two St. Joseph and area physicians attended.

The program featured a panel discussion on "The Spectrum of Coronary Disease and Management." Panelists were Drs. Ben D. McCallister, cardiologist; J. Tenbrook King, cardiologist; and William A. Reed, Jr., cardiac surgeon. All are from the Department of Cardiology at St. Luke's Hospital in Kansas City.

The program was introduced by William H. Ames, M.D., president of the Missouri Heart Association. Dr. Lawrence H. Pifer presided at the meeting and a business session.

Arrangements for the meeting were made by Drs. Martin J. Fischer, Chairman, and Gerald E. Fox and Edward M. Beheler of the Program Committee.

William B. O'Connor, M.D., *Secretary*

Clay County Medical Society

Dr. Paul Revare, Kansas City, has assumed the Presidency of Clay County Medical Society and presided at the business meeting on February 29. He was installed at the President's Dinner meeting in January and succeeds Dr. Donald E. Kuenzi.

Other new officers of the Society are Drs. Daniel C. Boone, President-Elect; Felix A. Pileggi, Vice-President; Robert J. Gauer, Secretary-Treasurer; Richard C. Hedges, Robert D. Williams and Van M. Robinson, Executive Committee; and Lawrence L. Perry, Jr., Phillip E. King and Van Robinson, Board of Censors.

The Society, the second oldest medical organization in Missouri, was founded in 1854 when Clay County was 34 years old and the state of Missouri was 35 years old.

Robert Gauer, M.D., *Secretary*

SECOND DISTRICT

COUNCILOR
LYSLE M. BACH, M.D., HANNIBAL

Chariton-Macon-Monroe-Randolph County Medical Society

The Chariton-Macon-Monroe-Randolph County Medical Society held its regular meeting on February 10 in the medical library of Woodland Hospital in Moberly. The members' wives were invited and most were present.

Dr. Gerald L. Miller, who is in the private practice of obstetrics and gynecology in Kansas City and now President of the Missouri State Medical Association, presented the program entitled, "Your MSMA." He emphasized that the state associations, together with the American Medical Association, are service organizations designed to help the physician in the care of patients.

Dr. J. Will Fleming arranged the program and recalled some highlights of the time when he and the speaker were serving residencies at a Kansas City hospital.

Mr. Ray McIntyre, Executive Secretary of MSMA, stated that the Missouri State Legislature has for consideration more than 1,300 bills of which more than 100 concern physicians.

The CMMR president, Dr. F. L. Harms, pointed out that Mr. McIntyre in 1942 had played the leading role in combining Monroe-Randolph with Macon and Chariton County Medical Societies.

Present were Dr. and Mrs. Gerald L. Miller, Mr. Ray McIntyre, Jefferson City; Dr. and Mrs. F. L. Harms, Chariton County; Dr. and Mrs. James Campbell, Macon County; and Dr. and Mrs. F. A. Barnett, Monroe County.

Randolph County Members present were Dr. Josephine Baker, Dr. and Mrs. W. D. Chute, Dr. and Mrs. C. C. Cohrs, Dr. and Mrs. J. Will Fleming, Dr. and Mrs. L. E. Huber, Dr. and Mrs. G. R. Hudson, Dr. and Mrs. R. V. Tompson and Dr. and Mrs. R. H. Young.

W. Deward Chute, M.D., *Secretary*

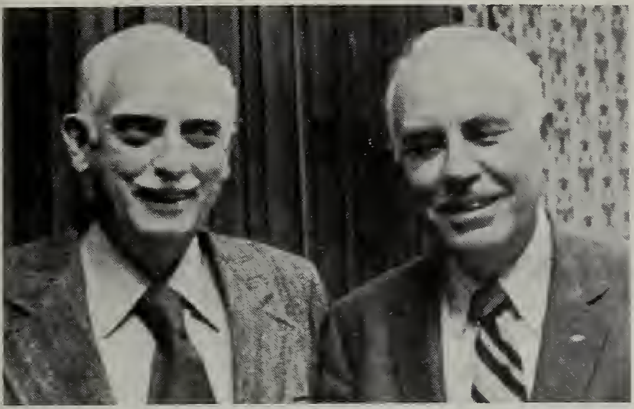
SIXTH DISTRICT

COUNCILOR
WILLIAM D. BRADSAW, M.D., CLINTON

Saline County Medical Society

Approximately 70 physicians and their wives attended a joint meeting of five area medical societies hosted by members of the Saline County Medical Society on January 9 at the Marshall Inn in Marshall.

Dr. B. F. Knipschild of Marshall presided at the dinner and scientific program which were attended by members of the Henry, Johnson, Lafayette-Ray and Pettis County Medical Societies.



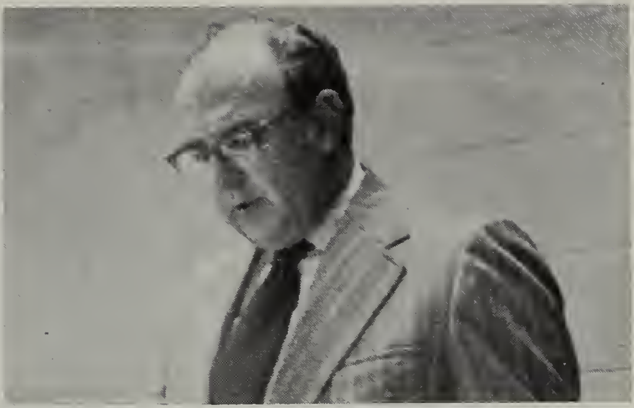
Dr. Shelby Hughs of Clinton *(left)*, a member of the State Board of Healing Arts, visits with Dr. John R. Lawrence who appeared on the program.

A special program was provided for the ladies.

The scientific program was presented by Donald W. Dickhaus, M.D., associate professor of medicine at the University of Missouri-Columbia School of Medicine. He discussed "Medical Management of Chronic Obstructive Lung Disease."

Dr. John R. Lawrence of Marshall read a paper on Dr. John Sappington, "a 19th century Missouri doctor who had a powerful effect upon American History." He made the presentation on behalf of the Friends of Arrow Rock who are seeking the cooperation of all doctors in Missouri and surrounding states in establishing a medical museum in Arrow Rock to be dedicated to the Pioneer Country Doctor.

Special guests at the meeting included Dr. Shelby B. Hughes of Clinton, a member of the State Board of Healing Arts; Mrs. Keith D. Jones, Warrensburg, President-Elect of the Woman's Auxiliary to the MSMA; and Mr. Royal O. Cooper, Jefferson City, MSMA Field Secretary.



Dr. B. F. Knipschild, President of Saline County Medical Society, presided at the dinner meeting attended by members of four county societies.

(Left to right) Mrs. J. E. Block and Doctor Block, President of Pettis County Medical Society, and Dr. Donald W. Dickhaus, guest speaker, and Mrs. Dickhaus were seated at the head table.

Dr. J. E. Block, President of Pettis County Medical Society, invited the group to meet in Sedalia in May.

James A. Reid, M.D., *Secretary*

IMPROVED ACCIDENT & HEALTH PROGRAMS

The Disability Income Policy sponsored by the Missouri State Medical Association since 1943 has now been made GUARANTEED RENEWABLE and income benefits are available up to $300.00 weekly to members under age 56 subject to acceptance by the Company.

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New Members

Conrado B. Abinoja, M.D., 1515 Lafayette Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Abinoja is a native of Manila, Philippines, received his preliminary education at the University of the Philippines and his M.D. degree from the University of the Philippines in 1965. He specializes in internal medicine.

Charles L. Abramson, M.D., 141 N. Meramec, St. Louis, has become a member of St. Louis Medical Society. Dr. Abramson is a native of Brooklyn, N. Y., received his preliminary education at New York University and his M.D. degree at the University of Basel-Faculty of Medicine in 1964. He specializes in radiology.

Violeta O. Brown, M.D., 24th & Gillham Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Brown is a native of the Philippines, received her preliminary education at the University of the Philippines and her M.D. degree at the University of the Philippines in 1956. She specializes in child psychiatry.

Ronald D. Craig, M.D., Perry Plaza Medical Center, Perryville, has become a member of Perry-Ste. Genevieve Counties Medical Society. Dr. Craig is a native of Fairburg, Neb., received his preliminary education at the University of Nebraska and his M.D. degree at the University of Nebraska in 1970. He is in general practice.

Fernando M. Egea, M.D., 4242 Holmes, Kansas City, has become a member of Jackson County Medical Society. Dr. Egea is a native of Las Palmas, Spain, received his preliminary education at the College of San Jose and his M.D. degree at the University of Cuyo-Mendoza in 1962. He specializes in neuropsychiatry.

Samuel E. F. Ericcson, M.D., 425 E. 63rd, Kansas City, has become a member of Jackson County Medical Society. Dr. Ericcson is a native of Rosario, Argentina, received his preliminary education Colegio Nacional and his M.D. degree at Universidad Nacional del Litoral in 1957. He specializes in psychiatry.

Jamil A. Fayez, M.D., 24th & Cherry, Kansas City, has become a member of Jackson County Medical Society. Dr. Fayez is a native of Jaff, Palestine, received his preliminary education at Science College and his M.D. degree at Dow Medical School in 1964. He specializes in obstetrics and gynecology.

Fred A. Fayne, M.D., 2625 W. Paseo, Kansas City, has become a member of Jackson County Medical Society. Dr. Fayne is a native of St. Louis, received his preliminary education at Dillard University and his M.D. degree at the University of Missouri in 1964. He specializes in psychiatry.

Jose Fischer, M.D., Western Missouri Mental Health Center, Kansas City, has become a member of Jackson County Medical Society. Dr. Fischer is a native of Torreon, Coah, Mexico, received his preliminary education at Cristobal Colon and his M.D. degree at the University de Nuevo Leon in 1966. He specializes in psychiatry.

John J. Fishman, M.D., 3015 Ballas Rd., St. Louis, has become a member of St. Louis County Medical Society. Dr. Fishman is a native of St. Louis, received his preliminary education at Tulane University and his M.D. degree at Tulane University in 1967. He specializes in anesthesiology.

Charles D. Glazzard, M.D., 415 E. 63rd, Kansas City, has become a member of Jackson County Medical Society. Dr. Glazzard is a native of Cleveland, Ohio, received his preliminary education at the University of Michigan and his M.D. degree at Wayne University in 1956. He specializes in psychiatry.

Montgomery C. Hart, M.D., 1710 Independence Ave., Kansas City, has become a member of Jackson County Medical Society. Dr. Hart is a native of Winnipeg, Canada, received his preliminary education at the University of Manitoba and his M.D. degree at the University of Manitoba in 1958. He specializes in pediatrics.

Alfonso W. Herdoiza, M.D., 751 E. 63rd, Kansas City, has become a member of Jackson County Medical Society. Dr. Herdoiza is a native of Riobamba, Ecuador, received his preliminary education at Central University and his M.D. degree at Central University in 1950. He specializes in anesthesiology.

Thomas M. Holder, M.D., 39th & Rainbow Blvd., Kansas City, Kansas, has become a member of Jackson County Medical Society. Dr. Holder is a native of Corinth, Miss., received his preliminary education at the University of Mississippi and his M.D. degree at Bowman Gray Medical School in 1952. He specializes in surgery.

Haruo Kusama, M.D., 1420 Grattan, St. Louis, has become a member of the St. Louis Medical Society. Dr. Kusama is a native of Iida, Japan. received his preliminary education at Washington University and his M.D. degree at Washington University in 1965. He specializes in child psychiatry.

Min-Jun Liu, M.D., 1325 S. Grand, St. Louis, has become a member of St. Louis Medical Society. Dr. Liu is a native of Miaoll, Taiwan, received his preliminary education at Taipei College and his M.D. degree at Taipei Medical College in 1966. He specializes in obstetrics and gynecology.

Remedios Medina-Lorenzo, M.D., 911 Michigan, Kansas City, has become a member of Jackson County Medical Society. Dr. Medina-Lorenzo is a native of Manila, Philippines, received his preliminary education at the University of Santo Tomas and his M.D. degree at the University of Santo Tomas in 1964. He specializes in internal medicine.

Octave C. Merveille, M.D., 1710 Independence Ave., Kansas City, has become a member of Jackson County Medical Society. Dr. Merveille is a native of Bastogne, Belgium, received his preliminary education at State University and his M.D. degree at State University in 1958. He specializes in pediatrics.

Harvard Y. Muhm, M.D., 1301 Boonslick, St. Charles, has become a member of the St. Charles-Lincoln County Medical Society. Dr. Muhm is a native of St. Charles, received his preliminary education at Yale University and his M.D. degree at Columbia University in 1963. He specializes in thoracic and general surgery.

Thomas H. Pinkstaff, M.D., 1012 N. Main, Sikeston, has become a member of SEMO County Medical Society. Dr. Pinkstaff is a native of Olney, Ill., received his preliminary education at Greenville College and his M.D. degree at the University of Illinois in 1963. He specializes in pediatrics.

Job B. Pontillas, M.D., Perryville, has become a member of Perry-Ste. Genevieve Counties Medical Society. Dr. Pontillas is a native of the Philippines, received his preliminary education at the University of the Philippines and his M.D. degree at the University of the Philippines in 1965. He specializes in general surgery.

Katharine A. Pyron, M.D., 2929 Baltimore, Kansas City, has become a member of the Jackson County Medical Society. Dr. Pyron is a native of Kansas City, received her preliminary education at Southern Methodist University and her M.D. degree at the University of Missouri in 1968. She specializes in internal medicine.

Neal S. Ratzlaff, M.D., 24th & Cherry, Kansas City, has become a member of Jackson County Medical Society. Dr. Ratzlaff is a native of York, Neb., received his preliminary education at Nebraska Wesleyan University and his M.D. degree at the University of Nebraska in 1963. He specializes in radiology.

Jack L. Reddin, M.D., 23rd & R. D. Mize Rd., Independence, has become a member of Jackson County Medical Society. Dr. Reddin is a native of Bristow, Okla., received his preliminary education at Oklahoma Baptist University and his M.D. degree at Baylor University in 1961. He specializes in internal medicine.

Walter F. Ricci, M.D., 425 E. 63rd, Kansas City, has become a member of Jackson County Medical Society. Dr. Ricci is a native of Buenos Aires, Argentina, received his preliminary education at National Bernardino Rivadavia and his M.D. degree at the University of Buenos Aires in 1960. He specializes in psychiatry.

Harvey P. Rubin, M.D., 701 E. 63rd, Kansas City, has become a member of the Jackson County Medical Society. Dr. Rubin is a native of Waterbury, Conn., received his preliminary education at the University of Connecticut and his M.D. degree at the University of Vermont in 1958. He specializes in thoracic and cardiovascular surgery.

James O. Soeldner, M.D., Meyer Blvd. at Prospect, Kansas City, has become a member of Jackson County Medical Society. Dr. Soeldner is a native of Waseca, Minn., received his preliminary education at Baker University and his M.D. degree at the University of Kansas in 1970. He is in general practice.

Narenair T. Soorya, M.D., 1420 Grattan, St. Louis, has become a member of St. Louis Medical Society. Dr. Soorya is a native of Karachi, Pakistan, received his preliminary education at D. J. Science College and his M.D. degree at Dow Medical College in 1964. He specializes in psychiatry.

"Let me give you something to calm those nerves."

Helmuth Sprinz, M.D., 24th & Cherry, Kansas City, has become a member of Jackson County Medical Society. Dr. Sprinz is a native of Berlin, Germany. He received his M.D. degree at Friedrich Wilhelm University in 1936. He specializes in pathology.

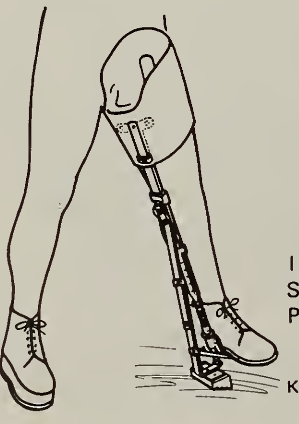
Elias M. Throne, M.D., Meyer Blvd. at Prospect, Kansas City, has become a member of Jackson County Medical Society. Dr. Throne is a native of New York City, N. Y., received his preliminary education at Baylor University and his M.D. degree at the University of Kansas in 1949. He specializes in physical medicine and rehabilitation.

Philip A. van Thullenar, M.D., Wornall Rd. at 44th, Kansas City, has become a member of Jackson County Medical Society. Dr. van Thullenar is a native of Dallas, Tex., received his preliminary education at Rockhurst College and his M.D. degree at St. Louis University in 1957. He specializes in pathology.

Enrique Vera, M.D., 425 E. 63rd, Kansas City, has become a member of Jackson County Medical Society. Dr. Vera is a native of Buenos Aires, Argentina, received his preliminary education at Escuela Normal Mariano Acosta and his M.D. degree at Buenos Aires University in 1964. He specializes in psychiatry.

Lilia F. Villarama, M.D., 2244 Union Rd., St. Louis, has become a member of St. Louis Medical Society. Dr. Villarama is a native of Quezon, Philippines, received her preliminary education at the University of Santo Tomas and her M.D. degree at the University of Santo Tomas in 1962. She specializes in pediatrics.

John S. Whitten, M.D., 2116 Sterling, Independence, has become a member of Jackson County Medical Society. Dr. Whitten is a native of Hattiesburg, Miss., received his preliminary education at the University of Missouri and his M.D. degree at the University of Tennessee in 1965. He specializes in obstetrics and gynecology.



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Pre-Sate® **(chlorphentermine hydrochloride)**

Caution: Federal law prohibits dispensing without prescription.

Indications

Pre-Sate (chlorphentermine hydrochloride) is indicated in exogenous obesity, as a short term (i.e. several weeks) adjunct in a regimen of weight reduction based upon caloric restriction.

Contraindications

Glaucoma, hyperthyroidism, pheochromocytoma, hypersensitivity to sympathomimetic amines, and agitated states. Pre-Sate (chlorphentermine hydrochloride) is also contraindicated in patients with a history of drug abuse or symptomatic cardiovascular disease of the following types: advanced arteriosclerosis, severe coronary artery disease, moderate to severe hypertension, or cardiac conduction abnormalities with danger of arrhythmias. The drug is also contraindicated during or within 14 days following administration of monamine oxidase inhibitors, since hypertensive crises may result.

Warnings

When weight loss is unsatisfactory the recommended dosage should not be increased in an attempt to obtain increased anorexigenic effect; discontinue the drug. Tolerance to the anorectic effect may develop. Drowsiness or stimulation may occur and may impair ability to engage in potentially hazardous activities such as operating machinery, driving a motor vehicle, or performing tasks requiring precision work or critical judgment. Therefore, such patients should be cautioned accordingly. Caution must be exercised if Pre-Sate (chlorphentermine hydrochloride) is used concomitantly with other central nervous system stimulants. There have been reports of pulmonary hypertension in patients who received related drugs.

Drug Dependence Drugs of this type have a potential for abuse. Patients have been known to increase the intake of drugs of this type to many times the dosages recommended. In long-term controlled studies with the high dosages of Pre-Sate, abrupt cessation did not result in symptoms of withdrawal.

Usage In Pregnancy The safety of Pre-Sate (chlorphentermine hydrochloride) in human pregnancy has not yet been clearly established. The use of anorectic agents by women who are or who may become pregnant, and especially those in the first trimester of pregnancy, requires that the potential benefit be weighed against the possible hazard to mother and child. Use of the drug during lactation is not recommended. Mammalian reproductive and teratogenic studies with high multiples of the human dose have been negative.

Usage In Children Not recommended for use in children under 12 years of age.

Precautions

In patients with diabetes mellitus there may be alteration of insulin requirements due to dietary restrictions and weight loss. Pre-Sate (chlorphentermine hydrochloride) should be used with caution when obesity complicates the management of patients with mild to moderate cardiovascular disease or diabetes mellitus, and only when dietary restriction alone has been unsuccessful in achieving desired weight reduction. In prescribing this drug for obese patients in whom it is undesirable to introduce CNS stimulation or pressor effect, the physician should be alert to the individual who may be overly sensitive to this drug. Psychologic disturbances have been reported in patients who concomitantly receive an anorectic agent and a restrictive dietary regimen.

Adverse Reactions

Central Nervous System: When CNS side effects occur, they are most often manifested as drowsiness or sedation or overstimulation and restlessness. Insomnia, dizziness, headache, euphoria, dysphoria, and tremor may also occur. Psychotic episodes, although rare, have been noted even at recommended doses. **Cardiovascular:** tachycardia, palpitation, elevation of blood pressure. **Gastrointestinal:** nausea and vomiting, diarrhea, unpleasant taste, constipation. **Endocrine:** changes in libido, impotence. **Autonomic:** dryness of mouth, sweating, mydriasis. **Allergic:** urticaria. **Genitourinary:** diuresis and, rarely, difficulty in initiating micturition. **Others:** Paresthesias, sural spasms.

Dosage and Administration

The recommended adult daily dose of Pre-Sate (chlorphentermine hydrochloride) is one tablet (equivalent to 65 mg chlorphentermine base) taken after the first meal of the day. Use in children under 12 not recommended.

Overdosage

Manifestations: Restlessness, confusion, assaultiveness, hallucinations, panic states, and hyperpyrexia may be manifestations of acute intoxication with anorectic agents. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension, or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma.

Management: Management of acute intoxication with sympathomimetic amines is largely symptomatic and supportive and often includes sedation with a barbiturate. If hypertension is marked, the use of a nitrate or rapidly acting alpha-receptor blocking agent should be considered. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendations in this regard.

How Supplied

Each Pre-Sate (chlorphentermine hydrochloride) tablet contains the equivalent of 65 mg chlorphentermine base; bottles of 100 and 1000 tablets.

Full information is available on request.

Trobicin®

sterile spectinomycin dihydrochloride pentahydrate, Upjohn

single-dose intramuscular treatment

High cure rate:* 96% of 571 males, 95% of 294 females
(Dosages, sites of infection, and criteria for diagnosis and cure are defined below.)**

Assurance of a single-dose, physician-controlled treatment schedule

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No allergic reactions occurred in patients with an alleged history of penicillin sensitivity when treated with Trobicin, although penicillin antibody studies were not performed

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Active against most strains of Neisseria gonorrhoeae in vitro (M.I.C. 7.5-20 mcg/ml)

A single two-gram injection produces peak serum concentrations averaging about 100 mcg/ml in one hour (average serum concentrations of 15 mcg/ml present 8 hours after dosing)

Note: Antibiotics used in high doses for short periods of time to treat gonorrhea may mask or delay the symptoms of incubating syphilis. Since the treatment of syphilis demands prolonged therapy with any effective antibiotic, and since Trobicin is not indicated in the treatment of syphilis, patients being treated for gonorrhea should be closely observed clinically. Monthly serological follow-up for at least 3 months should be instituted if the diagnosis of syphilis is suspected. Trobicin is contraindicated in patients previously found hypersensitive to it.

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*Data compiled from reports of 14 investigators. **Diagnosis was confirmed by cultural identitication of *N. gonorrhoeae* on Thayer-Martin media in all patients. Criteria for cure: negative culture after at least 2 days post-treatment in males and at least 7 days post-treatment in females. Any positive culture obtained post-treatment was considered evidence of treatment failure even though the follow-up period might have been less than the periods cited above under "criteria for cure" except when the investigator determined that reinfection through additional sexual contacts was likely. Such cases were judged to be reinfections rather than relapses or failures. These cases were regarded as non-evaluatable and were not included. JA72 1848-6

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globin; hematocrit and creatinine clearance; elevation of alkaline phosphatase, BUN and SGPT. In single and multiple-dose studies in normal volunteers, a reduction in urine output was noted. Extensive renal function studies demonstrated no consistent changes indicative of renal toxicity.

Dosage and administration: Keep at 25°C and use within 24 hours after reconstitution with diluent.
Male—single 2 gram dose (5 ml) intramuscularly. Patients with gonorrheal proctitis and patients being re-treated after failure of previous antibiotic therapy should receive 4 grams (10 ml). In geographic areas where antibiotic resistance is known to be prevalent, initial treatment with 4 grams (10 ml) intramuscularly is preferred.
Female—single 4 gram dose (10 ml) intramuscularly.

How supplied: *Vials, 2 and 4 grams—with ampoule of Bacteriostatic Water for Injection with Benzyl Alcohol 0.9% w/v.* Reconstitution yields 5 and 10 ml respectively with a concentration of spectinomycin dihydrochloride pentahydrate equivalent to 400 mg spectinomycin per ml. For intramuscular use only.
Susceptibility Powder—for testing *in vitro* susceptibility of *N. gonorrhoeae*.

Human pharmacology: Rapidly absorbed after intramuscular injection. A two-gram injection produces peak serum concentrations averaging about 100 mcg/ml at one hour with 15 mcg/ml at 8 hours. A four-gram injection produces peak serum concentrations averaging 160 mcg/ml at two hours with 31 mcg/ml at 8 hours.
For additional product information, see your Upjohn representative or consult the package insert. MED-B-1-S (LWB)

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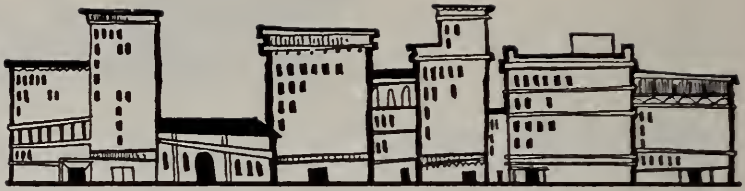
From the Medical Schools



ST. LOUIS UNIVERSITY

(Left to right) **Dr. Kenneth Kohlstaedt, vice-president of the American College of Physicians, confers with Dr. Thomas F. Frawley, Governor for Missouri, and Dean Robert H. Felix, F.A.C.P., at the Missouri Regional meeting of ACP.**

Several major medical meetings were held in St. Louis in February in which members of the St. Louis University School of Medicine faculty participated. The Missouri Regional Meeting and Missouri Society of Internal Medicine held a joint program in cooperation with the Washington University School of Medicine at the Clopton Auditorium, Wohl Clinic Building, Barnes Hospital Complex. The American College of Surgeons sectional meeting was held at the Chase-Park Plaza Hotel.

Thomas F. Frawley, F.A.C.P., Governor for Missouri, American College of Physicians, and Robert S. Mosser, F.A.C.P., president of the Missouri Society of Internal Medicine, extended invitations and announcements to physicians for the two-day meeting at which *E. Grey Dimond,* F.A.C.P., Provost for the Health Sciences, University of Missouri-Kansas City, spoke on "Acupuncture?" at the annual banquet held on February 25 at the Forest Park Hotel. Official College representative was *Kenneth G. Kohlstaedt,* F.A.C.P., vice-president of the American College of Physicians, who also was an invited luncheon speaker. He is professor of medicine at Indiana University School of Medicine.

Dr. Frawley is professor and chairman of the Department of Internal Medicine at the St. Louis University School of Medicine while Dr. Mosser is senior docent and associate professor of medicine at the University of Missouri-Kansas City School of Medicine.

Panel and program participants at the Sectional Meeting of the American College of Surgeons drawn from the St. Louis University medical faculty included *Drs. James E. Lewis,* Pediatric Surgery; *Kenneth R. Smith, Jr.,* Acute Spinal Cord Injury; *Leo J. Hartnett,* Chronic Pelvic Pain; *Gene B. Starkloff,* Intestinal Bypass; *Francis J. Burns,* Proctology; *Francis X. Paletta,* Plastic Surgery; *George C. Kaiser,* Thoracic Surgery; and *Vallee L. Willman,* Surgery for Complications of Myocardial Infarction.

Dr. Peter Forsham, professor of medicine and pediatrics at the University of California, San Francisco, will deliver the Hanau Loeb lecture entitled "Cortisones" on April 13. The lecture will be delivered in Glennon Hall at 12-noon. It is held annually to honor the late Doctor Loeb, who was dean of the St. Louis University School of Medicine from 1914 to 1927. Interested physicians are invited to attend.

Dr. Philip A. Katzman, professor of biochemistry, has received a research grant of $97,649 from the National Institutes of Health for a three-year period. It will support work concerned with the oncogenic and hormonal control of RNA methylation. *Dr. Carmine J. Coscia,* associate professor of biochemistry, has been awarded a research grant of $36,000 by the National Science Foundation for a two-year period. He is investigating the biosynthesis of indole alkaloids.

Dr. Jerome T. Y. Shen, associate clinical professor of pediatrics, has been named a consultant in pediatrics and adolescent medicine at the St. Louis State Hospital and the Missouri Institute of Psychiatry. He also has been elected as president of the Bi-State Interagency Council on Smoking and Health. Major health and educational organizations in the bi-state area are members of the Council. Dr. Shen represents the Missouri Chapter of the American Academy of Pediatrics and the St. Louis Medical Society on the Council.

UNIVERSITY OF MISSOURI-COLUMBIA

A 41-year-old man from Neosho received the first kidney transplant at the University of Missouri-Columbia Medical Center, and immediately after this surgery, another kidney from the same donor was transplanted to a 28-year-old man from Hannibal.

The transplant surgery was performed on February 8 by a surgical team headed by *Dr. Gilbert Ross*. Both patients tolerated the procedure well; complications were minimal.

Two weeks after the surgery, *Dr. John Maher,* chief of the nephrology section, reported both patients ambulatory with normal volume of urine. The patient from Hannibal was discharged late in February and the patient from Neosho was discharged early in March.

Kidney transplantation at the Medical Center represents an expansion of its renal service which has developed over the past three years as an active program for the management of chronic renal failure. More than 30 patients, including the transplant patients, have received artificial kidney treatment, some having been trained on an outpatient basis to use an artificial kidney in their homes.

Each of the transplant patients suffered from chronic renal failure for two years. Each had received artificial kidney treatment twice weekly for about 16 months. Since suitable donor kidneys were obtained, it was possible for the transplants to be performed.

Two donors' kidneys were obtained for transplant purposes from a person whose family had permitted his kidneys to be used after death. The Medical Center shares information regarding available donor kidneys with other medical institutions throughout the country. In this way, kidneys can be obtained on a national basis, if necessary.

Selected members of the departments of medicine, surgery and pathology are involved in the kidney transplant effort at the Medical Center. Pathologists perform the tissue-typing, a surgical team the actual operation and the nephrology division of the Department of Medicine is responsible for the overall management of the patient both before and after surgery.

It was not necessary to recruit new staff members for the kidney transplant effort. The Medical Center faculty includes trained transplantation and vascular (blood vessel) surgeons, and the staff of the nephrology division is experienced in the management of chronic renal disease. A histocompatibility laboratory for tissue-typing was established two years ago within the Department of Pathology.

A transplant committee, consisting of an immunologist, a nephrologist (kidney specialist), a surgeon, a pathologist and a pediatrician provides for ongoing evaluation and planning of the transplant program. The cornea of the eye, bone marrow and skin are among other tissues previously transplanted at the Medical Center.

To date, approximately 6,000 kidney transplants have been performed throughout the world. In many cases, the life of a patient has been sustained for several years with a transplanted kidney.

WASHINGTON UNIVERSITY

The School of Medicine has announced the appointment of *Saulo Klahr,* M.D., associate professor of medicine, as director of the Division of Renal (kidney) Disease.

Dr. Klahr

Carl V. Moore, M.D., Busch Professor and head of the Department of Medicine, in making the announcement, said that Doctor Klahr will succeed *Neal S. Bricker,* M.D. on July 1. Doctor Bricker will become professor and chairman of the Department of Medicine at Albert Einstein College of Medicine of Yeshiva University in New York.

Dr. Klahr, 36 years old, came from Colombia (South America) to Washington University in 1961 as a U. S. Public Health Service postdoctoral trainee. He has worked closely with Dr. Bricker since. An Established Investigator of the American Heart Association, Dr. Klahr is an authority on the effects of malnutrition on kidney function. His research interests also include the pathophysiology of chronic renal disease, and sodium transport across isolated membranes. He has published extensively in medical and scientific journals.

A School of Medicine scientist has been awarded a five-year grant of $1,057,193 from the National Institutes of Health (NIH), Bethesda, Md. The award was made to *Michael M. Ter-Pogossian*, Ph.D., professor of radiation physics.

The grant supports research in the Edward Mallinckrodt Institute of Radiology using cyclotron-produced, short-lived radioactive isotopes of the elements oxygen, nitrogen, carbon, iodine and flouride. The study will concentrate on the major metabolic pathways which sustain the function of vital organs and will seek new and noninvasive tests for the detection of disease. The primary emphasis of the study is brain metabolism, but research also will be conducted in the investigation of blood flow and metabolism by the heart and kidneys. Scientists in the departments of radiology, neurology, neurosurgery, psychiatry, pediatrics and the biomedical computer laboratory are collaborating in this research.

Two $10,000 grants for studies of ear disease have been awarded to Washington University School of Medicine's Department of Otolaryngology scientists by the Deafness Research Foundation (DRF).

I. Kaufman Arenberg, M.D., assistant physician in otolaryngology and a National Institute of Neurological Diseases and Stroke (NINDS) trainee, and *Richard M. Torack,* M.D., professor of anatomy and of pathology and director of the neuropathology laboratory, have received $10,000 for a second year to continue research in Meniere's disease.

David E. Crowley, M.D., assistant professor of physiologic acoustics in otolaryngology, has been granted $10,000 to continue a second year of research on *presbycusis* through the use of an animal model.

Doctor Crowley and his research assistant, *Mrs. Sylvia Swanson,* are using the rat, partially because of its short life span, to determine the degree of hearing loss. By isolating the rats from all noise, they have learned that old-age deafness still occurs despite the avoidance of noise exposure. Research will now center on the anatomy of the inner ear and documentation of changes during the aging process.

Doctor Torack's research is on the chemistry of the Meniere's disease within the ear cells. Doctor Arenberg, who is one of only five NINDS special teacher-investigator trainees appointed annually, is conducting all other research under the grant.

Through research under last year's grant, Doctor Arenberg determined that the lemon shark was the best animal for studying Meniere's disease due to the accessibility of the inner ear and the size of the regulating sac (endolymphatic sac). Research was done at the Lerner Marine Laboratory, a field station of the American Museum of Natural History in New York, and at a research station on the island of Bimini. Studies will continue to determine the mechanics of fluid control in the inner ear, with the purpose of applying the knowledge gained to the treatment of humans with Meniere's disease.

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Missouri Medicine in Review

FORTY YEARS AGO

C. A. W. Zimmermann, M.D. and J. Howard Cochran, M.D. of Cape Girardeau report a case of "Enchephalitis Following Vaccination Against Smallpox and Coincident with an Attack of Chicken Pox." They quote Flexner as saying, "The disease may bear a resemblance to the form or forms of encephalitis which occur occasionally in the course of the exanthematous disorders of childhood and in connection with certain rare cases of other infections, both in children and in adults." In another paragraph, he includes chicken pox as a "precursor."

A nationwide observance on March 24 commemorated Dr. Robert Koch's announcement 50 years ago that he had discovered the germ which causes tuberculosis. Bacteria were probably seen by Leeuwenhoek before the end of the 17th century; the doctrine of contagium vivum was considered and forgotten. Again after 1840, there was some revival of the theory that contagious diseases might be due to microscopic life, but it was the work of Koch, Pasteur and Lister which substantiated the germ theory of disease.

The *Journal* has an editorial on "Misguided Philanthropy." "An instance of well-guided philanthropy is that of Julius Rosenwald who provided that the immense wealth of the Rosenwald Philanthropic Foundation be expended, principal and interest, within 25 years from the date of his death. It was Mr. Rosenwald's opinion that men in one generation could not foresee and plan for the needs of a succeeding generation. Philanthropists who desire to build and endow hospitals have thus far limited their bequests to the brick, mortar and stone for the construction of the hospital and sometimes for its maintenance. To our knowledge, there is not a known instance of a philanthropist endowing the physicians on the staff of charity hospitals, without whom the institution would be nothing but a pile of brick, mortar and stone. Physicians are generous of their time and even their money to serve the poor and doubtless will continue to give this service free to the deserving needy. It is, however, becoming a question of considerable discussion as to whether the state or the municipality has the right to expect the service of physicians in caring for the sick wards of the community without some remuneration. It is here that well-guided philanthropy could serve the real welfare of the community by providing money to pay the physicians on the staffs of state, municipal and county hospitals."

TWENTY-FIVE YEARS AGO

In discussing Colles fracture, Nicholas Picard, M.D., Kansas City, comments:

"It (Colles fracture) was first described not by Colles in 1914, but by Pouteau in 1773. The so-called 'Colles Level,' as known today, was elucidated by Smith in 1847."

Carl F. Vohs, M.D., St. Louis, was reelected president of Missouri Medical Service, Inc. at the annual session of the organization. Other officers elected were Howard B. Goodrich, M.D., Hannibal, first vice-president; Mr. Louis W. Reps, Springfield, second vice-president; Mr. George M. Berry, St. Louis, treasurer; and R. O. Muether, M.D., St. Louis, secretary. The president, Doctor Vohs, reported that $170,304.50 had been paid to physicians for services rendered since the beginning of the plan on April 15, 1945 through Dec. 31, 1946 and that 67,988 persons were enrolled as of Dec. 31, 1946.

The British Medical Journal, which has been received in the Association office for many years on an exchange basis, is now reduced to two mimiographed pages because of the coal and power shortages in England. Just a short time ago, the *Journal of the Missouri State Medical Association* might have been in the same predicament if the coal strike in this country had been permitted to continue.

TEN YEARS AGO

Vernon E. Wilson, M.D., Dean of the University of Missouri School of Medicine, reminds us, "Two years ago, the statement was made in the University of Missouri issue of Missouri Medicine that 'Perhaps of first and greatest importance is the need for a complete mutual understanding between the practicing profession with the state and their medical school. . . . Unless these principles are repeated and acted upon at every opportunity, they are apt to be forgotten in the press of the solution of day-to-day problems.' This year, the applications for entrance to the University of Missouri School of Medicine nearly doubled while the majority of other schools experienced relatively little change."

The *Fulton Sun Gazette*-McCubbin Award was presented to R. N. Crews, M.D., Fulton, at the 57th annual Kingdom of Callaway Supper in February.

Guest speaker at the Hannibal High 12 Club earlier this year was E. M. Lueke, M.D. of Hannibal.—John A. Nuetzel, M.D., Clayton, was recently appointed medical director of St. Luke's Hospital in St. Louis.

A memorial portrait of Dr. Ernest Sachs, first professor of neurological surgery at Washington University, was presented to the School of Medicine recently. The memorial is a gift of 1930 alumni and physicians who trained under Doctor Sachs. Mrs. Ernest Sachs, wife of the late neurosurgeon, and Dr. Ernest Sachs, Jr. of Hanover, N. J., a neurosurgeon, attended the ceremony.

Judge Louis Brandeis once expressed his concern in these words, "Experience teaches us to be most on guard to protect liberty when the government's purposes are beneficent."

The medical staff at St. Luke's Hospital in St. Louis recently elected Ray D. Williams, M.D., Ladue, as president. James Pennoyer, M.D., Webster Groves, was elected vice-president, and John B. Shapleigh, M.D., St. Louis, was elected secretary-treasurer.

CLASSIFIED ADS

STUDENT HEALTH SERVICE—Position with medical staff at University of Missouri at Columbia to complete staff of 11. Starting salary $21,300 for 11 months with substantial increases, excellent fringe benefits plus no-cost retirement plan. If interested, contact William R. Galeota, M.D., Director, Student Health Service, Columbia, Missouri 65201. An equal opportunity employer.

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CLINIC FOR SALE—Redwood building, 2 acres, on Lake of the Ozarks. Two examination rooms, laboratory, pharmacy, X-ray and darkroom; fully-equipped, carpeted and air-conditioned. Less than two years old. Lakeside home also available. Write Box 371, Missouri State Medical Association, 515 East High, Jefferson City, Mo. 65101.

GP WANTED—To join four-man corporate group. Fifty-minute divided highway downtown St. Louis; 81-bed accredited hospital. Excellent hunting and fishing, four golf courses within 15 minutes. Salary $30,000 start with eventual membership in group. Contact Jack Mullen, M.D., 30 N. Allen, Bonne Terre, Mo. 63628 or call collect—314-358-2146.

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MSMA House To Seat 8 Student Delegates

The House of Delegates of the Missouri State Medical Association will include eight students next year, each with the right to vote. The MSMA House, meeting in Kansas City, April 6-9, voted to allow each of Missouri's four medical schools to choose two student delegates to the House with full voting rights.

MSMA Delegates also approved the purchase of a building in Jefferson City to be remodeled to serve as a permanent headquarters for the Association. It was hoped that the purchase of the building could be completed in late April.

The House reaffirmed support of the Health Care Foundation of Missouri and directed that copies of the Foundation's By-laws be sent to all members of the Missouri State Medical Association so that they might better understand the Foundation and its functions.

Also passed was a resolution endorsing the development of physician assistant training programs in Missouri under the guidelines of accreditation to be forthcoming from the American Medical Association. The House endorsed passage of legislation by the Missouri General Assembly to place control of the physician's assistant and physicians utilizing such services with the Board of Registration for the Healing Arts.

The House also passed a resolution supporting an autonomous Board of Registration for the Healing Arts Board, the status of which would change under a plan proposed by the State Reorganization Commission.

The House adopted a resolution calling on insurance companies to restructure their health care policies so that necessary ambulatory diagnosis and treatment will be covered on a fee basis comparable to inpatient care and also called for a study by the General Assembly concerning a definition and the possible licensing of Ambulatory Care Centers in Missouri.

MSMA Delegates reaffirmed support for fee for service delivery of health care services, strongly recommended that the Division of Welfare return to full payment of reasonable and customary fees for Medicaid patients and said if such action is not taken legal redress should be considered; and called on Congress to bring the Medicare program in compliance with the intent of Congress to give doctors and hospitals the right to judicial appeal of adverse decisions by Social Security Administration Intermediaries and Carriers.

The House declined to take a position on a resolution opposed to mandatory smallpox immunization and instead referred the matter to the Council for study.

The House did support the concept of Home Health Care and Visiting Nurses care in Missouri and urged fiscal intermediaries to recognize such services under present Medicare law provisions.

MSMA Delegates voted endorsement of the Medicredit Bill now before Congress. The measure is espoused by the American Medical Association.

The House reaffirmed its action of last year in urging physicians to restrict their use of amphetamines and voted that the resolution on this subject along with a pledge card against amphetamine use be mailed to every member.

Also supported was health education in elementary and secondary schools of Missouri and physician participation in comprehensive health planning agencies at both the state and local levels.

The House passed a resolution supporting the efforts of the Conservation Commission to expand the state's recreational facilities.

The delegates voted to change the definition of "Junior Member" in the Association By-Laws. Junior members will be those serving full-time AMA approved internships or residences. The House also voted to change the Association Constitution to allow past presidents to become delegates at large. This will become effective at the 1973 Annual Session. They also voted to change the Constitution to allow an initiative petition by members of the Association. This process, which will have to lay on the table until the 1973 meeting, could be initiated by a petition signed by 10 percent of the membership including petitioners representing at least one-half of the component medical societies, and the issue would be decided by a majority vote of those responding.

The House also accepted a procedural change recommended by the permanent Constitution and By-Laws Committee concerning the introduction of resolutions at annual meetings.

MSMA
News

FEE SIGNS MUST BE POSTED IN OFFICES

All Missouri State Medical Association members who have not posted signs advising patients that a list of base fee schedules is available for examination are urged to do so immediately. Wage price guidelines issued last December by the Price Commission require that physicians and other providers post such a sign "in a prominent place." Failing to comply could bring conviction of willful violation and a fine of up to $5,000.

Many Missouri physicians have received signs directly from the MSMA office except in cases where county societies have provided such signs for their own members.

A limited number of signs are still available upon request from the Missouri State Medical Association Office in Jefferson City.

NEW LEADERS OF MSMA — Shown above are the new leaders of the Missouri State Medical Association, from the right, President Walter T. Gunn of St. Louis; Council Chairman James C. Cope of Columbia President-elect Emil A. Stricker of St. James; Secretary John I. Matthews of Jefferson City; and Treasurer Charles R. Gulick, St. Louis.

Legislative Session Nears Conclusion

The fate of a new move to place Blue Cross and Blue Shield under the regulatory power of the Missouri Insurance Department was still in doubt on April 25 as the Missouri General Assembly moved into its final six days of the 1972 session. The session was to end at midnight on Sunday, April 30.

The latest bid to regulate the Blues came when the Missouri House passed a substitute for Senate Bill 619. The substitute included most of the provisions of House Bill 583 calling for regulation of the Blues, but without a premium tax.

The Senate declined to accept the House Substitute and on April 25 a Conference Committee including five Senators and five House members was seeking to work out a compromise bill which would be acceptable to both houses.

Senate Bill 436 which lowers the intoxication level to .10 to determine drunkenness when driving has passed both Houses and sent on to the Governor.

House Bill 1255 which adds rubella and rubeola vaccine to the mandatory list for school attendance in Missouri has been approved by both Houses and sent to the Governor.

House Bill 1053 which would have changed the statute of limitations in malpractice cases is dead for the session on the House third reading calendar.

House Bill 1087 which establishes a 24-member Advisory Council on Alcoholism and Drug Abuse has been passed and sent to the Governor.

House Bill 1261 which would allow the state cancer hospital to take full-pay patients after priority given to indigent and then those able to pay was passed.

House Bill 1262 which allows counties to issue revenue bonds for constructing and equipping county hospitals has passed both Houses and been sent to the Governor.

Dead for 1972 was HB 1093 the perennial chiropractic effort to expand the practice act. The measure died on the House Perfection Calendar.

House Bill 673 which would allow optometrists to be paid under Medicaid in Missouri was in the Senate Budget Control Committee due to its fiscal note and its fate was in doubt on April 25.

Controlled Substance Law Regulations Are Outlined

All physicians and others in Missouri who handle controlled substances are required to register with the Missouri Division of Health under terms of Chapter 195, Revised Statutes of Missouri as adopted by the General Assembly in 1971.

A general mailing outlining the need to register along with a registration form was sent to all Missouri physicians and others covered by the Statutes from the Division of Health the week of April 17, 1972. Passage of the new Missouri law was made necessary by adoption of the new Federal narcotic and dangerous drug law, the "Comprehensive Drug Abuse Prevention and Control Act of 1970" as passed by the U.S. Congress.

The Missouri statutes are based on a Uniform Act which was drafted by the National Conferences of Commissioners on Uniform State Law and this model statute has been adopted in a number of states. The Uniform Act has the aim of achieving uniformity between the laws of the several states and those of the Federal government. It was designed to complement the new Federal narcotic and dangerous drug legislation and provide an interlocking trellis of Federal and State law to enable government at all levels to control more effectively the drug abuse problem.

The main objective of the Uniform Act is to create a coordinated and codified system of drug control, similar to that utilized at the Federal level which classifies all narcotics, marihuana, and dangerous drugs subject to control into five schedules. Another objective is to establish a closed regulatory system for the legitimate handlers of controlled drugs in order to better prevent illicit drug diversion.

It was pointed out during debate concerning passage of the new Missouri law that in the absence of a state law in the drug field there can be no control of drugs and other substances subject to abuse except by Federal agents in Federal courts and there simply are not enough Federal agents to cover each state. State, county and local officials will have the responsibility for control of drugs and substances subject to abuse on the local level while Federal efforts are aimed at dealing with foreign countries, guarding the borders of the United States against illegal importation, controlling large manufacturers and interstate shipments of controlled substances.

In the future, when the Missouri registration program is fully implemented, registration with the Division of Health will be a necessary prerequisite for Federal registration. In addition, revocation of one registration is grounds for automatic revocation of the other.

A spokesman for the Division of Health points out that under terms of the new Missouri law and the regulations adopted to implement the law Missouri physicians do not need to show their state record number on prescription blanks or order forms. Only their Federal number needs to be shown.

Another feature of the Missouri Law is that Missouri record keeping requirements are identical to those of the Federal Bureau of Narcotics and Dangerous Drugs. One record will suffice for both Federal and State programs.

The original bill which set up the new state program included different record keeping requirements for state and federal agencies. Representatives of the Missouri State Medical Association were successful in their efforts to change the measure to its present single record system.

The Missouri State Medical Association also was instrumental in deleting a section from the bill which would have banned oral prescriptions for all controlled substances. Under the Law there can be an oral prescription for substances on schedule II, but a written prescription must go to the pharmacist within 72 hours. Normal oral prescription practices may be followed for schedules III and IV.

The Division of Health has five major areas of activity under the new Law. According to the Division, these areas are as follows:

1. The law requires all legitimate handlers of controlled substances to register each year with the Missouri Division of Health. Fees for registration have been established by regulations, but only after public notice and hearing. State registration numbers need not be shown on prescription blanks or order forms.

2. The regulations include a listing of substances subject to control. The Division of Health is making every effort to see that the substances under control in this state are identical to those being controlled by the Federal Bureau of Narcotics and Dangerous Drugs. In fact, the State Statutes provide for automatic adoption of changes to the Federal scheduling of controlled substances.

3. Record keeping requirements have also been promulgated. Missouri record keeping requirements are identical to those of the Federal Bureau of Narcotics and Dangerous Drugs. It will not be necessary to keep a separate inventory or record of drugs. One record will suffice for both Federal and State programs.

4. Security requirements were also adopted. At the time of adoption, these requirements were consistent with the Federal requirements.

5. Provisions have been made for emergency dispensing of controlled drugs by regulation as provided for in State Statutes. Here, again, the regulations promulgated by the Division of

(Continued on Back of Page)

MEDICAL JOURNALISM AWARD WINNERS — MSMA President Gerald L. Miller is shown here after he had presented Medical Journalism Award plaques and checks to three of the four winners at the Annual Banquet on Saturday night, April 8 in Kansas City. Accepting the awards were left to right, Mike Shannon for Radio Station KMOX, St. Louis; News Director Joe Kramer for KCMO-TV, Kansas City; and Phillip Brimble of the Kansas City Star. Marguerite Shepard of the St. Louis Globe-Demicrat could not be present. KMOX returned its $150 check to MSMA and the money has been donated to the Loan Foundation in the name of the radio station. KCMO-TV donated its $150 check to the University of Missouri Medical School-Kansas City.

Winners Named

The Missouri State Medical Association honored a radio station, a television station and two newspaper writers as the winners of the organization's first Medical Journalism Award competition at the annual banquet Saturday night, April 8 at the Muehlebach Hotel in Kansas City.

The winners include Radio Station KMOX, St. Louis, for its "At Your Service" programming; Television Station KCMO, Kansas City, for its news feature series on the new University of Missouri-Kansas City Medical School; Miss Marguerite Shepard of the St. Louis Globe-Democrat for a news series on the "Ambulatory Care Centers" concept of medical care; and Phillip S. Brimble, Science-Medical Editor of the Kansas City Star, for a feature entitled "New Lifelines for the Heart" which had to do with "coronary artery bypass" surgery.

Each of the Medical Journalism Award winners received a check for $150 and a plaque from Gerald L. Miller, M.D., Kansas City, President of the Missouri State Medical Association.

Occupational Safety Law Rules Apply To Physician Offices With One or More Employees

Physicians with one or more employees are subject to the Williams-Steiger Occupational Safety and Health Act of 1970, the Department of Labor has ruled. Under this act, each employer must display a poster supplied by the Occupational Safety and Health Administration.

The poster cites provisions of the law, responsibilities of employees and employers, and penalties.

Physicians with two or more employees must also keep a log of occupational injuries and illnesses (OSHA Form 100), a supplementary record of injuries and illnesses (OSHA Form 101), and a summary of injuries and illnesses (OSHA Form 102). Form 102 must be posted where employees can see it.

AMA attorneys said employers are not required to submit the forms but must have them available for inspection by the Department of Labor. Posters, forms and information may be obtained from OSHA regional offices. A physician's guide to the law was prepared by the AMA's Council on Occupational Health and published in the February 14 issue of Journal of the American Medical Association.

Drug Law

(Continued)

Health are uniform with Federal requirements.

As soon as possible, the Division of Health expects to mail a complete copy of the regulation to each and every registrant in the state for their information. In the interim, should any registrant or potential registrant have any questions, they should contact the Division of Health in Jefferson City.

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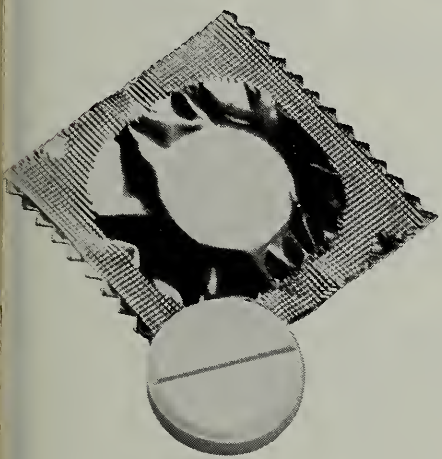

so easy to take everyone in the family will keep to the regimen you prescribe

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INDICATIONS	DOSAGE (1st Day)	ADDITIONAL REGIMEN	COMMENTS
Pinworm disease	Two doses of 1 tablet/50 lb	Repeat 7 days later	This regimen is designed to reduce the risk of reinfection. However, if not practical, repeat the regimen the next day.
Threadworm,* large roundworm,* hookworm,* and whipworm* disease	Two doses of 1 tablet/50 lb	Repeat the next day	Alternatively, a single dose of 2 tablets/50 lb may be given. However, a higher incidence of side effects should be expected.
Creeping eruption	Two doses of 1 tablet/50 lb	Repeat the next day	If active lesions are still present 2 days after completing this regimen, a second course is recommended.
Symptoms of trichinosis* during the invasive phase of the disease	Two doses of 1 tablet/50 lb	Repeat for 2 to 4 successive days	The optimal dosage for the treatment of trichinosis has not been established.

The recommended maximal daily dosage is 3 g (6 tablets).

*Clinical experience with thiabendazole for treatment of each of these conditions in children weighing less than 30 lb has been limited.

Dr. E. A. Stricker Named MSMA President-Elect in Kansas City

E. A. Stricker, M.D.

Emil A. Stricker, M.D., St. James surgeon, was elected President-Elect of the Missouri State Medical Association on April 9 at the final meeting of the House of Delegates during the 114th Annual Session in Kansas City.

Doctor Stricker will become President of the Association at the 115th Annual Session in St. Louis next spring, succeeding Walter T. Gunn of St. Louis, who assumed the MSMA Presidency on April 8.

A native of St. James, Doctor Stricker received his Bachelor of Science degree from the University of Missouri-Columbia. He received his M.D. degree at Northwestern University Medical School in Chicago and interned at St. Louis City Hospital. He is a Fellow of the American College of Abdominal Surgery.

A member of the Board of Missouri Boystown in St. James, Doctor Stricker is surgeon for the Soldiers Home in that city. He is chief of surgery at the Phelps County Hospital in Rolla, where he also operates a medical clinic.

Active for many years in civic and fraternal groups, he is past-president of the St. James Chamber of Commerce, St. James Lions Club and St. James Board of Aldermen. He also is past-president of the Phelps County Historical Society and Phelps County Centennial Association. He is a member of the Masonic and IOOF Lodges.

Doctor and Mrs. Stricker are the parents of four children. Their home is on a farm near St. James, where Doctor Stricker has the largest registered Angus herd in Missouri.

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CAUTION: Federal law prohibits dispensing without prescription.
Indications: Pre-Sate (chlorphentermine hydrochloride) is indicated in exogenous obesity, as a short term (*i.e.*, several weeks) adjunct in a regimen of weight reduction based upon caloric restriction.
Contraindications: Glaucoma, hyperthyroidism, pheochromocytoma, hypersensitivity to sympathomimetic amines, and agitated states. Pre-Sate (chlorphentermine hydrochloride) is also contraindicated in patients with a history of drug abuse or symptomatic cardiovascular disease of the following types: advanced arteriosclerosis, severe coronary artery disease, moderate to severe hypertension, or cardiac conduction abnormalities with danger of arrhythmias. The drug is also contraindicated during or within 14 days following administration of monamine oxidase inhibitors, since hypertensive crises may result.
Warnings: When weight loss is unsatisfactory the recommended dosage should not be increased in an attempt to obtain increased anorexigenic effect; discontinue the drug. Tolerance to the anorectic effect may develop. Drowsiness or stimulation may occur and may impair ability to engage in potentially hazardous activities such as operating machinery, driving a motor vehicle, or performing tasks requiring precision work or critical judgment. Therefore, such patients should be cautioned accordingly. Caution must be exercised if Pre-Sate (chlorphentermine hydrochloride) is used concomitantly with other central nervous system stimulants. There have been reports of pulmonary hypertension in patients who received related drugs.
Drug Dependence: Drugs of this type have a potential for abuse. Patients have been known to increase the intake of drugs of this type to many times the dosages recommended. In long-term controlled studies with high dosages of Pre-Sate, abrupt cessation did not result in symptoms of withdrawal.
Usage In Pregnancy: The safety of Pre-Sate (chlorphentermine hydrochloride) in human pregnancy has not yet been clearly established. The use of anorectic agents by women who are or who may become pregnant, and especially those in the first trimester of pregnancy, requires that the potential benefit be weighed against the possible hazard to mother and child. Use of the drug during lactation is not recommended. Mammalian reproductive and teratogenic studies with high multiples of the human dose have been negative.
Usage In Children: Not recommended for use in children under 12 years of age.
Precautions: In patients with diabetes mellitus there may be alteration of Insulin requirements due to dietary restrictions and weight loss. Pre-Sate (chlorphentermine hydrochloride) should be used with caution when obesity complicates the management of patients with mild to moderate cardiovascular disease or diabetes mellitus, and only when dietary restriction alone has been unsuccessful in achieving desired weight reduction. In prescribing this drug for obese patients in whom it is undesirable to introduce CNS stimulation or pressor effect, the physician should be alert to the individual who may be overly sensitive to this drug. Psychologic disturbances have been reported in patients who concomitantly receive an anorexic agent and a restrictive dietary regimen.
Adverse Reactions: Central Nervous System: When CNS side effects occur, they are most often manifested as drowsiness or sedation or overstimulation and restlessness. Insomnia, dizziness, headache, euphoria, dysphoria, and tremor may also occur. Psychotic episodes, although rare, have been noted even at recommended doses. **Cardiovascular:** tachycardia, palpitation, elevation of blood pressure. **Gastrointestinal:** nausea and vomiting, diarrhea, unpleasant taste, constipation. **Endocrine:** changes in libido, impotence. **Autonomic:** dryness of mouth, sweating, mydriasis. **Allergic:** urticaria. **Genitourinary:** diuresis and, rarely, difficulty in initiating micturition. **Others:** Paresthesias, sural spasms.
Dosage and Administration: The recommended adult daily dose of Pre-Sate (chlorphentermine hydrochloride) is one tablet (equivalent to 65 mg chlorphentermine base) taken after the first meal of the day. Use in children under 12 not recommended.
Overdosage: Manifestations: Restlessness, confusion, assaultiveness, hallucinations, panic states, and hyperpyrexia may be manifestations of acute intoxication with anorectic agents. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension, or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma.
Management: Management of acute intoxication with sympathomimetic amines is largely symptomatic and supportive and often includes sedation with a barbiturate. If hypertension is marked, the use of a nitrate or rapidly acting alpha-receptor blocking agent should be considered. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendations in this regard.
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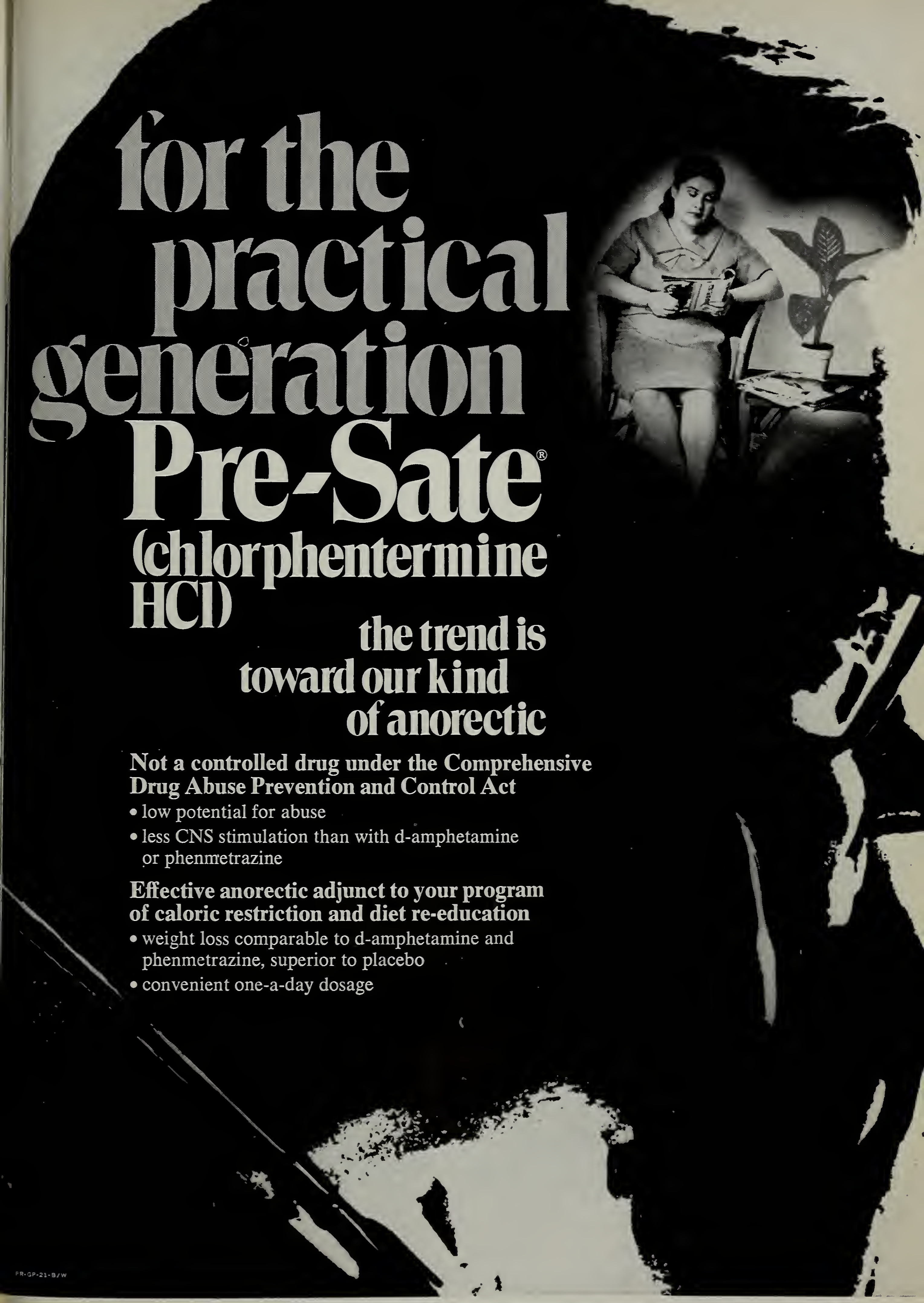

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1972 Annual Report

The Health Care Foundation of Missouri

By

HECTOR W. BENOIT, JR., M.D., Kansas City
Chairman of the Board of Directors

For the information of all members of the Missouri State Medical Association, MISSOURI MEDICINE *presents this Annual Report which was read by Doctor Benoit before the House of Delegates on April 6, 1972 during the 114th MSMA Annual Session.*

SINCE APRIL, 1971, the Health Care Foundation of Missouri has been quite active. It is the purpose of this report to bring the Administrative and Participating Members as well as the two sponsoring organizations, the Missouri State Medical Association and the Missouri Association of Osteopathic Physicians and Surgeons, up-to-date on the activities of the past 12 months.

A joint meeting of the Board of Directors, the Central Coordinating Committee and the Chairmen of the five Regional Review Committees was held in June of 1971 to review the methods being employed in our peer review mechanism. It was felt at that time that although it was relatively early in our experience, the review process had been somewhat cumbersome and inefficient. Out of this meeting came three rather important decisions.

First, a transmittal form was developed to be utilized by all persons caring to use the Health Care Foundation. This has undergone slight modification since its development and has served to facilitate the flow of pertinent and important information to the various Review Committees when a problem was brought to their attention for review.

Secondly, the need for Guidelines indicating norms of practice was recognized. A decision was made to acquire the Hennepin County Guidelines from Minneapolis. These were then circularized to all disciplines in the state through their specialty societies, including the Missouri Academy of Family Practice, and to the Osteopathic physicians for their deliberations, modifications and expansion of same as it would appear to relate to their fields of medical practice in the state of Missouri. It has taken nine months to get this information compiled, and, at the present time, the Central Coordinating Committee is busy putting these separately-submitted Guidelines into a formal booklet which will be available to many parties as needed. The basic philosophy by the Central Coordinating Committee, which is supported by the Board of Directors, is that these Guidelines should be nothing but guidelines, without rigid rules or regulations. They should accommodate the highly varying needs of individual patients and the disparity which exists in the response of patients to "norms of treatment." Furthermore, it is fully recognized that these Guidelines are continuously subject to alteration, change and modification as new modes of management of disease entities arise and as other circumstances arise which would dictate from the medical point of view an obvious need for amendment of the Guidelines. It still remains within the purview of the physicians involved to modify these Guidelines as they see fit. The Guidelines relate only to the methods of diagnosis and treatment of diseases frequently seen by each specialty or group of practitioners and in no way are related or identified by fees. The development of these Guidelines will be extremely helpful in currently ongoing negotiations with carriers in soliciting businesslike arrangements for doing review for them and will be of tremendous help to the activities of each Regional Review Committee as they relate their efforts and investigations to the quality of care exemplified by the matters brought to them for review.

A third action taken by the Board at the June, 1971 meeting was the full recognition of the unwieldiness of some segments of the bylaws of the Health Care Foundation, particularly regarding membership. The bylaws Committee of the Board was instructed to draw up appropriate changes and recommendations which would be acted upon at the next Board meeting and be presented to the Administrative Members for their consideration.

In July, 1971, the Health Care Foundation was invited to provide a large segment of the program for the Annual Seminar of Kansas City Blue Shield. This appears to have been a most productive opportunity. Our participation consisted of formal presentations of the history, goals and outline of the services of the Health Care Foundation, plus a demonstration of the peer review process by a Review Committee.

The September meeting of the Board of Directors was held in St. Louis. The Bylaws Committee report was reviewed, calling for only voluntary Participating Membership in the Health Care Foundation and requesting that the Administrative Members approve this change in bylaws. The Administrative Members were further asked by the Board to give direction regarding the solicitation of voluntary Participating Membership in the Health Care Foundation. Both the parent bodies sponsoring the Health Care Foundation did approve the bylaws changes and further endorsed the Health Care Foundation's development of a plan of solicitation of voluntary membership.

Further action at the September meeting of the Board was to begin recruitment for a full-time employee to staff the Health Care Foundation office, thereby making it possible to relieve Mr. Royal O. Cooper from his part-time obligations to the Health Care Foundation, in which role he had done such a superb job. However, it was quite evident that fund raising, solicitation for Participating Membership and more thorough preparation of the cases submitted for review were far beyond the scope of any part-time employee and that a full-time, knowledgeable individual would have to be hired in order to fulfill these needs. After considerable recruitment and review of prospective candidates for the position, Mr. E. Mark Halvorson was selected and appointed Executive Vice-President effective on Nov. 15, 1971. Since his arrival on the scene, he has been able to expand the Foundation activities beyond the capacity previously inherent in part-time staff. He has enjoyed the personal cooperation and support of Mr. Cooper, Mr. Ray McIntyre of the Missouri State Medical Association office and Mr. Ed Borman, Executive Secretary of the Missouri Association of Osteopathic Physicians and Surgeons. All of these men have been invaluable in helping Mr. Halvorson.

Shortly after the Board meeting in September, a petition for injunction was filed by several individual physicians in St. Louis protesting the automatic nature of the membership in the Health Care Foundation, *et al*, naming individually all of the Council members and Officers of the Missouri State Medical Association and the Association and the Health Care Foundation, seeking to enjoin them from supporting the Health Care Foundation. This legal action is still pending. To date, this has not interfered with the ongoing development of the peer review activities of the Health Care Foundation nor its continued viability.

At the September meeting of the Board, the possibility of Health Care Foundation cooperating with a new computer program at the University of Missouri was brought to our attention by Dr. William Allen. A special committee of the Board has been appointed to work with Doctor Allen and the group at the University of Missouri in developing this program, which would provide the Health Care Foundation not only with an opportunity to categorize the educational needs which will be developed by continuing review within the state, but, also, to give the Health Care Foundation itself an opportunity to review its own work as far as the effectiveness of its review is concerned, to establish modes of treatment as they appear to be developed through the review mechanism, which may very well be the source of indications that changes in the Guidelines may become necessary. This program is still in the developmental stage as of the time of this report, but it appears to be an excellent opportunity for the Health Care Foundation to become computer-based in a manner which will amplify the effectiveness of its peer review and provide the resource material which will guide the Foundation in its educational efforts as the peer review mechanism grows.

The Board met again in December. At this time it was able to develop final forms for solicitation of Participating Membership from the ranks of both the MSMA and the MAOPS. As of this date, there have been two such solicitations to the memberships of these associations. In view of impending PSRO legislation in the form of the Bennett Amendment, it was felt by the Board at its last meeting in March, 1972 that it will become imperative also to offer the opportunity to become Participating Members in the Health Care Foundation to those physicians with licenses and practicing in the state of Missouri who are not members of their county or state medical associations or district and state osteopathic associations, respectively.

At the December meeting, a great deal of discussion was held regarding the advisability of creating an advisory committee to the Board. It was felt that this advisory committee consisting of "consumers," if properly selected, could provide the Board with a great deal of input and information to further the scope of their activities in providing true peer review as it relates not only to modes of practice and costs, but in identifying educational needs which could be provided by the many educational resources within the state. At this time, a steering committee has been appointed to develop proposals for such an advisory committee, and, at the next meeting of the Board, it is hoped that formal appointment of this advisory committee will be effected.

There have been two replacements on the Board of Directors by the Administrative Membership of MSMA: Dr. Charles Gulick resigned and was replaced by Dr. Joseph Vacca of St. Louis and Dr. Rae Froelich resigned and was replaced by Dr. Frank Maple of Springfield. On the Central Coordinating Committee, Doctor Froelich was replaced by Dr. Clement Grebel of St. Louis and Doctor Maple was replaced by Dr. James Kinder of Cape Girardeau.

Financially, the Health Care Foundation is passing through a trying period. Further financial support is being negotiated not only from the Blues in Missouri but from the Health Insurance Council, private foundations and industrial management groups with a vested interest in the quality of care and the cost of care which they are providing for their employees.

During the past year, we have had various expressions of opinion from physicians throughout the state through their Review Committees, identifying different attitudes as to the financial responsibilities which the Health Care Foundation should recognize. For example, we have had two opportunities to apply for federal grants for development of the peer review mechanism with basically no strings attached. However, there is a large segment of the medical population in this state who still are very, very leery of having any governmental dollars involved in our activities. This is quite understandable. In the normal course of events, particularly when and if National Health Insurance in some form is adopted, I think there will of necessity have to be some federal funds involved in our operation, but they should never become exclusive.

There are many physicians who feel that since this is a physician-supported organization and it was basically created for the benefit of the physician and the patient, the physicians themselves should be providing the financial support. Indeed, there has been financial support in the inception of this organization through the two state physician associations. Of even further magnitude, if converted into dollars, has been the untold number of physician man-hours and effort which have been expended in the meetings involving the Review Committees, the Central Coordinating Committee and the Board. To date, the Judicial Committee has been spared any responsibility, inasmuch as we have had no cases which have been reviewed which have involved physicians to the point where it was felt referral to the Judicial Committee was indicated. Virtually all of the cases which have been reviewed to date have been equitably resolved, if not at the level of the Regional Review Committee, then at the level of the Central Coordinating Committee.

One of the expressed opinions of those people who feel the physicians should be underwriting the entire cost of this organization has been the concern that we might become "beholden" to the insurance carriers if they should become our major source of financing. This certainly has not proven to be true in other insurance reviews that have been conducted in the past, and our experience of only a little over a year has indicated no sense on the part of any of the people involved in the Review Committees of feeling they were beholden to any insurance company. The major issue in every case has been, "Did this patient receive good quality care at an appropriate fee level?"

It has been a cause for concern that the initial request for review has frequently been the question of cost. This is inevitable in the inception of this peer review mechanism, but it is not and never will be as long as the current Board is responsible for the operation of the Health Care Foundation, the primary reason for our existence. It has been quite interesting, in reviewing individual cases in which the fee has been questioned by the carrier as the point at issue, that when the actual problem was reviewed, the individual fee was not the issue which the physicians identified as the problem, but rather that there was probable overutilization or inadequate utilization of laboratory, office or hospital facilities for the diagnosis that had been established.

Since carriers are the dominant source for cases being submitted for peer review, it is natural that fees would be one of the major reasons for submission. However, in only a very few instances have there been serious questions about the integrity of a physician's work in treating given individuals and charging a given fee. More importantly, the Foundation has been able to support the physician's charge in numerous cases. One case in particular exhibits the posture of the Foundation: a Medicaid case concerning the usual and customary level. When this was not forthcoming from the Medicaid office, the Health Care Foundation was able to put sufficient pressure on the Medicaid office to see that the usual and customary fee was indeed paid to the physician after we had reviewed the problem. Abuse of federally-funded programs or even privately-supported programs by the subscriber or the patient has been identified on numerous occasions, and it has been the patient who has been at fault when the issue was resolved. This gave the governmental carrier or the private carrier the support which he needed to prevent abuse of the insurance program which they were underwriting.

I would say, from the brief experience that we have had that the Board at this time feels that funding from many sources is totally appropriate. Private foundations have supported similar activities in other parts of the country, and this is why we are currently involved with trying to develop financial support from such sources. There is no question but what we can serve the insurance companies, and there is absolute certainty that we can serve the physician in protecting his interests, both financial and, even more important, in the relationship he creates with his patient.

At this current meeting, the Health Care Foundation has a modest exhibit available to all of those attending who possibly do not feel they understand the purpose of the Health Care Foundation, how it functions and what it can do for the physician and his patient. We would welcome anyone stopping by and making inquiry, and we will do our very best to answer any questions.

At the present time, the solicitation in which we have indulged has yielded a Participating Membership of 2,057 M.D.'s who are members of MSMA and 373 D.O.'s who are members of MAOPS.

The future of the Foundation obviously is dependent upon several things. Foremost, it is dependent upon the continued active support of its two parent organizations which created it. Secondly, it is imperative that we obtain the support of almost all of the physicians in the state of Missouri if we are indeed to have the "clout" which we need to conduct our affairs, to gain public acceptability and to obtain the sincere respect of the third party carriers with whom we will be dealing.

In order for this peer review function to work, there must be three ingredients, all of which are independent and yet totally dependent upon the existence of the other two. The Health Care Foundation is one of these ingredients. It must be able to provide peer review of an equitable, meaningful variety. It must provide Guidelines for the use of its reviewing physicians, for the education of its Participating Physicians and for the education and meaningful cooperation of third party carriers.

The second element that is absolutely essential is the participation of the physicians who are willing to abide by the decisions of the peer review mechanism and will so state; and, furthermore, who will be willing to participate actively in the activities of the Health Care Foundation if they can and when they are called upon to do so.

The third element is the third party payor, whether private or governmentally oriented. The third party must agree to accept the Guidelines developed by the Health Care Foundation and must agree to abide by the decisions rendered by the Health Care Foundation, in return for which there will be a certain portion of the financial support of the Health Care Foundation anticipated to be forthcoming.

If the physician does not recognize the peer review mechanism as a valid one, the system will fail. If the carrier does not abide by the Guidelines with which he has formally contracted to live, then the physician must exercise his right of appeal, and himself, call for review of the situation if, indeed, the carrier has acted in a unilateral manner. The Health Care Foundation must continue to maintain highest quality peer review; it must maintain ongoing surveillance of the Guidelines; and it must maintain an ongoing effort at identification of the results of the peer review so that the educational process to which the Health Care Foundation is devoted will flourish.

As you can see, these three elements which I have outlined for you are essential. You sitting in this body here today, and only you, represent your state association. Without your support, not only here but at home, of the purposes of this peer review mechanism, the Health Care Foundation will indeed fail. This is the last bulwark to which the public and organized medicine can look in order to protect itself from "bureaucratic medicine."

St. Louis Area Societies Endorse Amphetamine Drug Resolution

The major medical societies in Metropolitan St. Louis have approved a joint resolution on amphetamine in an effort to assist in the growing national effort to curb amphetamine prescriptions.

JOINT RESOLUTION

All medical practitioners in the greater St. Louis area are gravely concerned over the problem of drug abuse in the St. Louis area, and they are uniting in this strong effort to help eliminate those drug problems over which they can exert some control.

Because the abuse of amphetamine and amphetamine-like drugs is on the increase and becoming a serious health problem in the population, and taking note of the recent increase in deaths from the overdosage of amphetamine drugs, the following statement is being issued with the endorsement of the leaders of the major medical societies in this area.

It is urged that all physicians markedly reduce or cease their writing or issuing of prescriptions for amphetamine or amphetamine-like drugs, reserving them for use in individuals with narcolepsy, hyperactive children, and those specific cases where the physician feels it is imperative for the welfare of the patient. It is also hoped that in the issuing of orders for such drugs in the care of hospitalized patients, the same care be exercised.

The resolution was signed by the following Medical Society presidents: Dr. Eugene Pennington, St. Louis Medical Society; Dr. Louis Hetlage, Lincoln-St. Charles County Medical Society; Dr. James Mayfield, Jefferson County Medical Society; Dr. Jack Eidelman, St. Louis County Medical Society; Dr. John L. Burroughs, St. Louis Osteopathic Asosciation; Dr. Parker Word, Mound City Medical Forum; and Dr. Julian W. Buser, St. Clair County Medical Society.

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IMPORTANT NOTE: *In vitro* sulfonamide sensitivity tests are not always reliable. The test must be carefully coordinated with bacteriologic and clinical response. When the patient is already taking sulfonamides, follow-up cultures should have aminobenzoic acid added to the culture media.

Currently, the increasing frequency of resistant organisms is a limitation of the usefulness of antibacterial agents including the sulfonamides, especially in the treatment of chronic and recurrent urinary tract infections.

Free sulfonamide blood levels should be measured in patients receiving sulfonamides for serious infections since there may be wide variations with identical doses; 20 mg/100 ml should be maximum total sulfonamide level, as adverse reactions occur more frequently above this level.

Contraindications: Hypersensitivity to sulfonamides, infants less than 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis), pregnancy at term, and during the nursing period.

Warnings: Safety of sulfonamides in *pregnancy* has not been established. Sulfonamides will not eradicate group A streptococci. Deaths associated with sulfonamide administration have been reported from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias. Clinical signs such as sore throat, fever, pallor, purpura or jaundice may be early indications of serious blood disorders. Complete blood counts and urinalyses with careful microscopic examination should be performed frequently during sulfonamide therapy.

Precautions: Use with caution when impaired renal or hepatic function, severe allergy or bronchial asthma is present. In glucose-6-phosphate dehydrogenase-deficient individuals, hemolysis (frequently a dose-related reaction) may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias:* Agranulocytosis aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia, methemoglobinemia. *Allergic reactions:* Erythema multiforme (Stevens-Johnson syndrome), generalized skin eruptions epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia, allergic myocarditis. *Gastrointestinal reactions:* Nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis, stomatitis. *C.N.S. reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria. Periarteritis nodosa and L.E. phenomenon have occurred with sulfonamide therapy. Sulfonamides bear certain chemical similarities to some goitrogens, diuretics and oral hypoglycemic agents. Goiter production, diuresis and hypoglycemia have occurred rarely in patients receiving sulfonamides. Cross-sensitivity may exist with these agents.

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Special Article

Physician Manpower: A Test of State Health Leadership

By

HERBERT R. DOMKE, M.D.*

Director
The Division of Health of Missouri

I CONGRATULATE the Missouri Public Health Association on the timeliness of the theme, "Public Health Leadership for the 1970s," which was selected for the theme of the 1971 conference. The 1970 MPHA meeting produced the collective opinion that during this decade, the '70s, a new concept of health must be implemented that will close the gap now existing between the health services that are possible and the health services that actually are delivered. It was further agreed that this concept required the public health community to broaden its definition of health from the mere "absence of pain and disease" to the "presence of complete mental, physical and social well-being."

The degree to which this concept of positive health can be implemented during the 1970s nationally and here in Missouri depends upon the quality and effectiveness of the health leadership that is available. The critical question is: Who shall lead?

It would be foolhardy to assume that leadership in the field of public health belongs irrevocably to the professionals in the public health community. Be assured that there are strong and determined forces working, and be assured that leadership must and will come from somewhere. I, for one, believe the state professional leaders can and will provide important contributions.

Some public health professionals are alarmed by the present situation. Mr. Thomas F. Williams[1] from the Department of Health, Education and Welfare said:

"For a very long time, the nature of public health problems has been determined by massive, seemingly unrestrained forces which the public health community does not control.

"Runaway science, runaway technology, runaway population, runaway urbanization, runaway exploitation of natural resources: these are the forces that are determining the nature of public health problems today. The public health community—far from influencing them—has been borne along by their momentum as helplessly as a leaf in the wind."

Mr. Williams might have added the runaway health expectations of a larger, better educated and generally more affluent population. He did add the following indictment of the public health community:

"The principal trustees of the public health stand on the sidelines, seemingly content to respond to human events rather than to help shape them, preferring prognosis to prophylaxis, practicing hindsight rather than foresight and defining preventive medicine almost exclusively in terms of clinically administered vaccines and inoculations while the real determinants of the quality of human health move ahead unhindered in a totally different arena."

This stinging indictment should challenge the Missouri public health community to reassess its leadership role to become more meaningful and effective.

This is not the time in which the public health community can remain indecisive or indifferent.

Let me point out in the beginning of this address that, prior to January 1, 1971, when I became Director of the Missouri Division of Health, all of my experience in public health had been at the city and county levels. Statewide public health is a relatively new work-experience to me, so I will address you as one still in the process of bringing the state picture into focus.

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* This address was delivered by Doctor Domke at the 1971 Annual Meeting of the Missouri Public Health Association in St. Louis.

It has been a pleasure for me to become acquainted with the programs of the Missouri Division of Health and to see at least a little of health programs in all the different areas of the state. Of course, I knew many of the public health workers in Missouri and had worked with them in previous years. However, I am beginning to look at Division of Health programs from a different perspective after assuming my appointment. The state of Missouri is fortunate and, as State Health Officer, I am fortunate that public health is served by a group so well-trained, experienced and hard working. I am most favorably impressed with the job being done. We are experienced and successful. Our past and present contribution is the best predictor of the role we must play in the future. And I am most appreciative of the friendly help Dr. L. M. Garner and all other executives and personnel of the Division have given me. But with the State Board of Health, they have made clear what had to be expected. Yes, there are important and difficult problems, and there still remain difficulties that have been with us for some time. There also are new difficulties.

What are some of the biggest problems?

Important health problems are obvious at the local and the state level and, for that matter, from the federal point of view. Today, an overriding public concern with health care is its high cost. It is a problem for almost every family, and it is a problem for governments. In St. Louis, financing the municipal hospitals is a major element in the city's fiscal crisis. The Medicaid program at the state level is an important element in the state's fiscal crisis and the fiscal problems of the patient care at the University Medical Center at Columbia are endangering the medical education program there. Attempts by the Social Security Administration and the intermediaries to reduce costs of the home health service program have endangered local public health programs. Other examples would not be hard to find. I will come back to discuss further the problems presented by the rapid inflation of medical costs.

A program to assure ambulance services obviously requires a very high priority and is currently receiving attention in the state legislature as well as in many local communities. For some fortunate communities, there are well-equipped ambulances staffed by well-trained personnel. For other communities, ambulance services are not available or discontinuance of established services has been announced or threatened. For the state as a whole, however, ambulance service and emergency medical care are a major issue and deserve and are getting attention now.

Finally, basic public health law in the American constitutional system demands state government action. The *state* has the *primary* legal responsibility to meet the health needs of its citizens. To be sure, the federal government's influence has grown tremendously as the result of grant-in-aid programs. And, to be sure, for the individual person and for the physician, health is maintained or disease is prevented or treated in the home and the neighborhood and the community. However, it is clear that state leadership in public health is necessary.

The state then has the primary legal responsibility. But it cannot, in fact, be expected to "go it alone" in the United States in the decade of the '70s. Perhaps the federal government, within the next year or two, will adopt legislation directed to a national health program and, in doing that, will give much attention to problems of payment for care. There is a wide consensus—Republican and Democrat, AFL-CIO, American Medical Association—that change must be made, although there are wide differences in their recommendations. A new term, that of federal preemption, is increasingly being heard in public health administration. The federal government in its Medicare and Medicaid programs already has preempted responsibility for policy and funding of government medical care programs. The state's interest must be to influence that national program to be more effective than the programs which have led to the disastrous medical cost inflation.

What of local leadership? National policies will obviously be of major importance, but it is in the local community that health care is given. It is the local water supply that is or is not fluoridated; it is the neighborhood immunization level that determines risk of outbreak of measles. The time and difficulty to get to a doctor is determined by the local availability of physicians. It is the sanitarian making the restaurant inspection who prevents food poisoning and it is the public health nurse who follows through to be sure that a patient continues on tuberculosis medication that provides the public health service that is important to you and me as individuals.

What then for state responsibility in the health field? The federal government is responsible for a national health program and the direct work is done at the local level. To begin with at the state level, no less than federal or local, if we are to accept and work to achieve the real meaning of the World Health Organization's definition of health, then we have accepted the need for health workers to accept new responsibilities. It necessarily follows that we must concern ourselves with new health concerns and problems as they emerge. We must look to today's health problems and not yesterday's public health practices. The professional health worker must adapt his professional knowledge and experience in new fields to new health needs.

Indeed, there are new health problems that urgently require our attention. In a strange and paradoxical way, it is the very successes of the health professions, and not least the public health specialists, that are the direct cause of some of our most difficult problems. Everyone now agrees that there is a real shortage of doctors. Many persons have difficulty or delay in getting needed medical attention. The shortage of physicians is a major problem because there is so much more we expect of them and, in fact, so much more that they can do. The successes, now almost forgotten, of virtual elimination of smallpox, diphtheria and whooping cough have produced a community expectation that other infectious diseases also will be brought under control, and we are now completing the job of protecting against regular and German measles. Just continuing safe immunization levels for many diseases takes more time and visits because there are more different vaccines to give. Certainly, we don't reduce the demand for physician and nurse time by saving lives with kidney machines: we make more work for the health workers. It is these successes and many, many others that have produced the greater demand for doctors and health services and which are progressively making the shortage of physicians and other health manpower more acute.

However, no one is applauding the past successes. For the health professional, like the politician, the punch line is "That's fine, but what're you going to do for me now?"

The opportunity, then, to provide leadership is to do something about today's problems today and to anticipate tomorrow's, if possible.

As a real problem and, also, as a good example, let us look at physician manpower. In talking of health manpower, perhaps some of you will wonder what this has to do with the traditional public health concepts of prevention of disease. My response is that in our training in epidemiology, we are experts in analysis of community health problems. The principles of health education lead to demonstrated success in interpreting health problems to the community and to public officials. And because we work, for the most part, in and for the community, what we say reflects our perspective of the problem as it affects people generally in the whole community. Finally, by virtue of our successful efforts in other public health programs, we will be looked to for leadership in solving new problems. As I talk about Missouri's physician shortage and what we in public health may do, all of these basic public health concepts will play their part.

If you wish, you may consider that the discussion is a case study to illustrate how leadership can be provided at the state level. There will be reference to data collection and data analysis, reference to reporting and interpreting health facts to the general public and to the heads of government. There will be obvious implications about mobilizing the local community group and professional groups to join in a statewide endeavor. All of these are standard daily concerns of the public health worker. However, I am not talking as a professor of public health practice.

Most of us are on the firing line and we are expected to apply public health principles for community benefit. We can expect that the principles will continue to be discussed and will be taught as effectively to an oncoming generation of public health workers. Therefore, as Director of the Division of Health, I am not really talking about the physician shortage as an abstract example. *We do have a shortage.* It affects the health of thousands of people each day and in hundreds of communities. As public health leaders, we must accept the responsibility to do something about it. What, then, shall we do?

To begin, there must, of course, be an agreement by those who must act that there is a problem and that we must work toward its solution. The State Board of Health has declared that the first priority health program is more physicians for Missouri. For those of us in the Division of Health, that is equivalent to marching orders. The Board of Health's concern is agreed to by many, many others. As you all know, doctor shortages and state support for medical education have been major items of concern in Missouri legislatures for more than a decade.

Second, we must identify the problem and get as accurate a description of it as possible.

The Olson Report[2] has provided a good outline of the major features of the problem. Unfortunately, there has been no program to keep this material up to date or to provide some necessary refinements. For a program that is identified as the first health priority program, we need good information and analysis and it should be conducted on a regular basis. On initiative of the Governor's Council for Comprehensive Health Planning, a program has been undertaken to establish a Missouri Center for Health Statistics. The Board of Health has accepted the responsibility for the development of a Missouri Health Statistics Center in the Missouri Division of Health. Further, the Board authorized collection of health manpower data by a group led by Dr. O. T. Anderhalter of St. Louis University. The importance of getting better information may be better understood if I point out that for Missouri there is a 20% discrepancy between the data for M.D.s of the American Medical Association and that of the Missouri Board of Healing Arts. In the data available to Doctor Olson, for example, it was not possible to identify retired physicians. It is difficult to understand the concentration of physicians at the Lake of the Ozarks unless retirement is taken into account. If we want to know if physicians are available for care in the community, psychiatrists whose practices are restricted to a state institution must be identified. I am pleased to report that Doctor Anderhalter's Committee has had full support from the Board of Healing Arts, the Missouri State Medical and Osteopathic Associations and the Missouri and Bi-State Regional Medical Programs. As a result, information has been obtained from physicians in Missouri that will permit us to bring the Olson Report up to date and keep it current. The statistical data, however, is hardly more than a dry skeleton of what we need.

The field staff of the Division of Health has a most important contribution to make. The physician looking for a community in which to locate certainly will want to know whether the needed hospital and other resources for modern medical practice will be available to him. Therefore, more is required of an effective physician placement program than knowing that a physician is needed. Physician placement programs of the Missouri State Medical Association and the State Osteopathic Association have been the major physician placement programs for several decades. The two Association programs operate independently. Recent discussions between the Board of Health and the Associations have produced agreement of pooling of efforts.

Efforts in the past have basically related to the nonmetropolitan areas. Also, there obviously is a need to develop physician recruitment programs for low income sections of the metropolitan areas. I must emphasize that what is needed is not just another survey of how many physicians are working or are needed in each county. We know that almost every town, large or small, needs more physicians. There is no one answer or easy solution to this manpower shortage. If there were, it would have long since been discovered and used. Caution and hard work is the prescription for physician placement programs. None of us should give false encouragement to an interested group that we can get them a doctor. In working with devoted volunteers, we know that it is difficult and frustrating to have to discourage them, but better to be discouraging though honest rather than to leave the impression in a town of a couple of hundred, for example, that you will be able to get a physician to locate there.

I plan to establish a distinct unit in the Division of Health with full-time personnel to coordinate health manpower activities. They would work with anyone who has ideas on the subject—state professional associations, community groups, central office, districts and local units. They could certainly work with public health personnel to help develop various types of programs at all levels and to work with our colleagues in other local and state agencies.

Altogether, I believe we are beginning to do some of what is needed. We must expect considerable difficulty and frustration. There simply

"He spoke in millions . . . then I found out he was a bacteriologist."

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Precautions: As with other thyroid preparations, an overdosage may cause diarrhea or cramps, nervousness, tremors, tachycardia, vomiting and continued weight loss. These effects may begin after four or five days or may not become apparent for one to three weeks. Patients receiving the drug should be observed closely for signs of thyrotoxicosis. If indications of overdosage appear, discontinue medication for 2-6 days, then resume at a lower dosage level. In patients with diabetes mellitus, careful observations should be made for changes in insulin or other antidiabetic drug dosage requirements. If hypothyroidism is accompanied by adrenal insufficiency, as Addison's Disease (chronic subcortical insufficiency), Simmonds's Disease (panhypopituitarism) or Cushing's syndrome (hyperadrenalism), these dysfunctions must be corrected prior to and during SYNTHROID (sodium levothyroxine) administration. The drug should be administered with caution to patients with cardiovascular disease; development of chest pains or other aggravations of cardiovascular disease requires a reduction in dosage.

Contraindications: Thyrotoxicosis, acute myocardial infarction. **Side effects:** The effects of SYNTHROID (sodium levothyroxine) therapy are slow in being manifested. Side effects, when they do occur, are secondary to increased rates of body metabolism; sweating, heart palpitations with or without pain, leg cramps, and weight loss. Diarrhea, vomiting, and nervousness have also been observed. Myxedematous patients with heart disease have died from abrupt increases in dosage of thyroid drugs. Careful observation of the patient during the beginning of any thyroid therapy will alert the physician to any untoward effects.

In most cases with side effects, a reduction of dosage followed by a more gradual adjustment upward will result in a more accurate indication of the patient's dosage requirements without the appearance of side effects.

Dosage and Administration: The activity of a 0.1 mg. SYNTHROID (sodium levothyroxine) TABLET is equivalent to approximately one grain thyroid, U.S.P. Administer SYNTHROID tablets as a single daily dose, preferably after breakfast. In hypothyroidism without myxedema, the usual initial adult dose is 0.1 mg. daily, and may be increased by 0.1 mg. every 30 days until proper metabolic balance is attained. Clinical evaluation should be made monthly and PBI measurements about every 90 days. Final maintenance dosage will usually range from 0.2-0.4 mg. daily. In adult myxedema, starting dose should be 0.025 mg. daily. The dose may be increased to 0.05 mg. after two weeks and to 0.1 mg. at the end of a second two weeks. The daily dose may be further increased at two-month intervals by 0.1 mg. until the optimum maintenance dose is reached (0.1-1.0 mg. daily).

Supplied: Tablets: 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and color-coded, in bottles of 100, 500, and 1000. Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, N.F., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent. SYNTHROID (sodium levothyroxine) **for Injection** may be administered intravenously utilizing 200-400 mcg. of a solution containing 100 mcg. per ml. If significant improvement is not shown the following day, a repeat injection of 100-200 mcg. may be given.

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are not enough physicians and there won't be for many years. All that we hope for, using commercial language, is to get a bigger share of the market for Missouri.

Finally, a major element of our problem is physician production. The Olson Report, as all other analyses, has shown that there is inadequate production of physicians from medical and osteopathic schools nationally and here in Missouri. Clearly, more physicians must be graduated from medical and osteopathic schools. Many distinguished medical and civic leaders in this state have given their efforts to this problem. The state of Missouri has accepted the responsibility of concern for physician and other health manpower by its support of the medical schools at Columbia and Kansas City. But, unfortunately, Missouri will not produce as many physicians as it needs in 1971 or 1975. Of course, it takes time to develop a medical school and, unfortunately, it is expensive. Some of the delay in meeting Missouri's problem, however, stems, I believe, from the absence of an objective reporting of what the state's problems are and what the state must do. The Board of Health and Division of Health must and will speak to legislative policy. For more than a decade, the policy and fiscal decisions regarding physician education have been made by competing local and educational interests—Columbia versus Kansas City—public school versus private school. It has been a competition in which one community or school has won and another has lost. And, indeed, there have been losers. Among the losers has been the public to be served whose only real interest is in getting a physician and not really caring whether he was trained at Columbia or at Kansas City or in one of the four private schools or one of the two public schools. The time is long since overdue for us in Missouri to develop a statewide plan and goal and utilize all of our resources. They will be needed to meet that goal.

It is obvious that we cannot meet our state needs for physicians by trying to divide too few dollars among six competing schools. The state-supported medical school at Columbia was the first step in a state program to provide more physicians for Missouri. Now, an additional step is being undertaken, namely, the establishment of an additional medical school at Kansas City. In taking this second step, we must not neglect to insure adequate performance and adequate funding for the Missouri University Medical School at Columbia, but, clearly, the second state school also is needed and will be expensive. In addition, we must also insure that we continue the four private medical schools. There would be no benefit for Missouri in physician output or in funding if we build medical schools with public money and allow private schools to close. Unfortunately, it is expensive to train doctors. But it is even more expensive not to produce the doctors we need. Missouri must support all medical and osteopathic schools.

It is apparent today that all six medical schools in the state require additional financial support. The state of Missouri cannot meet its physician needs unless a substantially higher investment is made. This judgment is stated with clear recognition of the very real fiscal crisis facing this state. However, it would be penny-wise and pound-foolish to limit medical school training. The shortage of physicians is one of the factors producing the medical cost inflation which takes hundreds of millions of dollars more each year. The fiscal problems of the medical school at Columbia and Kansas City are no less and no more vital than those of St. Louis University or at Kirksville. Most of Missouri's physicians come from Missouri medical schools and Missouri's health services in the near and long future will depend on Missouri's production in medical education. To meet only the minimal present and future demands for health manpower will require increased financial support for all the physician training schools in this state.

Federal funds will be available, but with or without federal financing, Missouri needs a program which will meet Missouri's needs. Competition in the legislature in the past has served to deflect attention from the needs of the whole state. And continued competion will only delay development of the overall, more vigorous program that must be developed to meet Missouri's needs. We need an overall state plan in which all medical schools participate. Such a plan must recognize the resources which differ among the six schools. A state plan, of course, will need to take account of the very obvious problems of financing medical education and not only for schools but for students.

Most important of all, that plan must take account of the needs of the entire state. Special attention will need to be focused on the areas of greatest need now—the rural areas and the urban ghettoes. However, the plan, while giving special attention to those specific needs, must be based on adequate assessment of today's and tomorrow's problems for the entire population. Fundamentally, the only justification for use of

(Continued on page 339)

state tax funds for medical education is to insure adequate physician services to all Missouri residents.

In these comments, I have emphasized only one of the health problems facing this state. Is it not obvious in this one example that there is abundant opportunity for state public health leadership? That there is useful work to be done seems clear enough. It would be easy to discuss other health problems and programs. As I said earlier, leadership for the solution of health problems must and will evolve, and I am sure that the State Board of Health and the Missouri Division of Health will help in developing the needed plans and programs.

These are indeed difficult and confusing times. It is plain fact that the past five years have produced more changes in health organization than we have seen in many decades. Nonetheless, we in public health have a unique skill. We are after all, all of us, specially trained and experienced in community health. For certain problems, we as specialists in community health must provide critical decisions. In many other instances, our contribution will be valuable and delivered in coordination with other professional or lay groups. I have no doubt we will measure up.

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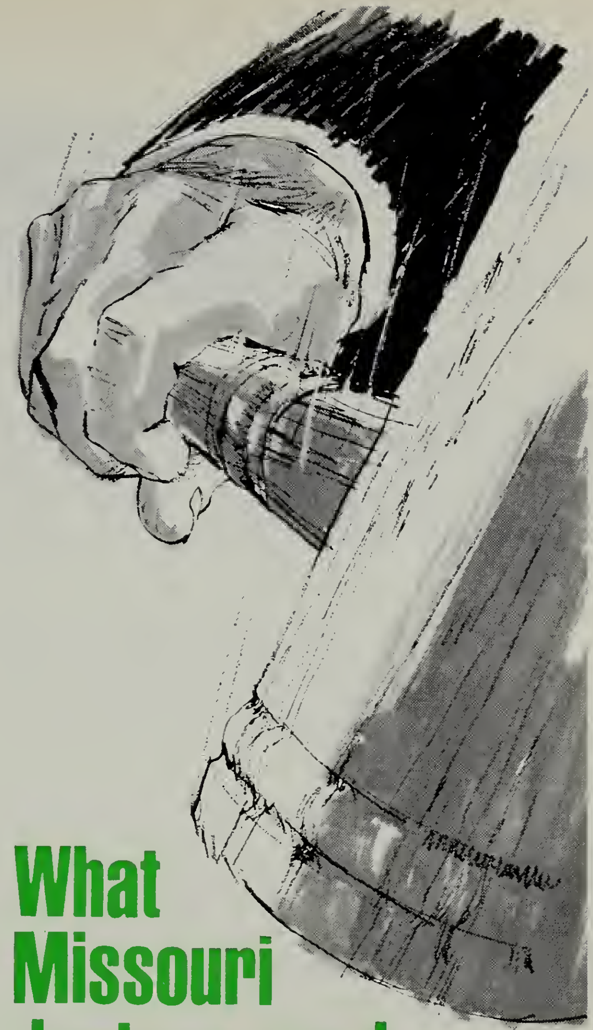
". . . and cut out the starches."



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Notes of interest from Here .... and There

Gov. Warren E. Hearnes has reappointed **Dr. Doyle C. McCraw** of Bolivar and appointed **Dr. Eugene T. Hansbrough** of Poplar Bluff to the Missouri Regional Medical Program Advisory Council. Doctor McCraw is a Past-President of the MSMA and Doctor Hansbrough is Tenth District Councilor. Doctor Hansbrough succeeds **Dr. Wilson J. Ferguson** who resigned. The 12-member council is charged with developing statewide plans for the coordination of health services.

Dr. Jay F. Tuttle, assistant medical superintendent at Fulton State Hospital since 1966, is now superintendent of Farmington State Hospital. He replaced **Dr. Retus W. Osborn** who has been named assistant director of the Missouri Alcoholism and Drug Abuse Program. Doctor Osborn has served as superintendent at Farmington since 1964.

Dr. Ben H. Koon, Bolivar, received the Silver Beaver Award at the 46th annual dinner of the Ozarks Council of the Boy Scouts of America in the Student Union ballroom at Southwest Missouri State College in Springfield recently. Doctor Koon has been active in Scouting since a boy, working with the Lakeland District for which he serves as an officer. Also medical advisor to the Good Samaritan Boys Ranch, he has been honored by Southwest Baptist College as a Life Service Award recipient.

Dr. W. D. English, Cardwell, is the fifth nominee and **Dr. Joseph A. Zimmerman**, Kennett, is the eighth nominee for this year's Citizen-of-the-Year Award to be presented by *The Daily Democrat* in Kennett in recognition of outstanding community and area service. **Dr. Florian G. Hopkins**, Gideon, is a previous nominee. Doctor English was cited for his contributions in the fields of medicine, public health and community service and Doctor Zimmerman was nominated for his contributions in the fields of medicine, education and mental health and retardation service.

Dr. Leo H. Pollock, Kansas City, lectured to the University of Cape Town and Association of Surgeons of South Africa at the Groote Schuur Hospital on February 23. His subject was "Surgery of the Breast." He also lectured to the surgical staff at the Hôpital Cochin in Paris, France on March 11, 1972. Doctor Pollock is author of "Missouri Medicine In Review" which appears in this journal each month.

Dr. B. M. McLain, Poplar Bluff, was elected president of the Southeast Missouri School Board Association recently at the annual dinner meeting of the Southeast Missouri Association of School Administrators and School Board Association.—**Dr. Byron E. Watts** was elected to the Jefferson City Board of Education in a city election in April.

As a tribute to the late **Dr. Carter W. Luter** of Butler, an all-out effort was made to set a record of blood donations when the Red Cross Bloodmobile visited Butler on March 20-21. Doctor Luter practiced medicine in Butler and Bates counties for 41 years and headed the blood program for many years. Citizens and various organizations pledged their support of the Dr. Luter Memorial Blood Collection Days.

WASHINGTON

The American Medical Association protested again to the Federal Price Commission that the Administration's economic stabilization program is discriminatory as it applies to physicians.

A detailed statement outlining the AMA's position was sent to the Price Commission March 27 by Dr. Max H. Parrott, chairman of the AMA Board of Trustees, in response to the commission's announcement in the Federal Register that it was seeking a general review of its policies.

The AMA statement emphasized that the Association supports President Nixon's efforts to curb inflation. But, the AMA said, physicians are "very much concerned that the economic restrictions imposed upon them do not have equal application to all segments of the economy."

The AMA recommended that the Price Commission establish a Health Industry Council or Committee with representatives of the AMA and other health associations as members.

"Such a committee could provide a direct conduit to the Price Commission of the resources, expertise and experience of its members," the AMA said. Through such a committee the Price Commission would have access to in-depth information accumulated by professional associations in the health care field. Furthermore, a direct channel of communication between the staffs of these organizations and the staff of the Price Commission would provide the Price Commission with assistance not otherwise obtainable.

The AMA expressed confidence that its statement reflected the concern of all physicians regarding the operation of the price control program as it applied to their services. The statement concluded:

"We believe that the comments and suggestions made in this statement reflect the concern of all physicians regarding the present operation of the price control program as it relates to their services. Accordingly, we urge the Price Commission to eliminate the discriminatory rules which single out physicians and other noninstitutional providers of health care. We also call upon the Price Commission to foster a simpler, more equitable system for the enforcement of price controls and the processing of applications for exceptions. An application for an exception not processed within 20 days should be deemed to be approved."

The AMA statement pointed out that professional fees, such as lawyers', outside the health profession were not subject to limitations and that "manufacturers, retailers and sellers of services generally are entitled to full pass-through of their increased costs."

The AMA statement continued:

"Of all sellers of commodities and services, only physicians (and other noninstitutional providers of health care) are restricted to an aggregate price increase of 2.5% a year in passing through increased costs. We do not believe that this discriminatory restriction is necessary to curb the rate of inflation. If indeed such a restriction were needed, the most effective application would be in those segments of the economy which command the bulk of the consumer's dollar—food, clothing and housing.

"The regulations divide health care providers into institutional providers and noninstitutional providers for price control purposes. This is an artificial and irrational distinction which should be abolished. The plain fact of the matter is that institutional providers frequently provide all, and always provide some, of the kind of services which non-institutional providers sell. . . .

"We are convinced that the special restrictions in the regulations applicable to physicians (and other noninstitutional providers) will make no meaningful contribution to the goals of the Price Commission and as a matter of principle should be eliminated. Physicians should be encouraged to invest in new facilities and technology which will elevate the quality of medical care. The 2.5% limitation on the pass-through of additional costs discourages such investments.

"The Economic Stabilization Act requires that the President issue standards to serve as a guide for determining prices, such standards to be generally fair and equitable. The regulations provide for an application for an exception or exemption if the economic stabilization regulations and guidelines will result in serious hardship or gross inequity. However, the regulations do not provide any criteria or standards to be applied when a physician seeks an exception because of 'serious hardship or gross inequity.' We believe that serious hardship or gross inequity is involved where a physician has not increased his fees to keep pace with those charged by his colleagues. Many physicians have held the line on fees despite rising costs. They have delayed raising their fees and, in some instances, physicians have not increased their fees for several years. We believe that these physicians should not be penalized by being frozen to a substandard level of fees.

"Standards for exceptions to the price regulations should include provisions for physicians to raise their fees under circumstances such as the following:

"1. Where the price charged for a particular service or services is significantly lower than that most commonly charged in the same community by the same class of providers of health services. Example: A physician specializing in internal medicine whose charge for a routine office visit is significantly less than that most commonly charged by other physicians specializing in internal medicine in the same community.

"2. Where the price charged for a particular service or services is significantly lower than that most commonly charged in similar nearby communities by the same class of providers of health services and the applicant is the only one or one of a few in the same class of providers of health services in the same community. Example: The only ophthalmologist in a community whose charge for an eye examination for prescription glasses is significantly less than that most commonly charged by ophthalmologists in similar nearby communities.

"3. Where the price charged by the applicant is the price most commonly charged in the community, or less, for a particular service or services and is substantially less than that most commonly charged in nearby communities because of substandard sociological or economic conditions that exist in the applicant's community. Example: A physician practicing medicine in a ghetto area in which the increase in fees during the past four or five years has not kept pace with increases that have generally taken place in nearby communities which have not been subject to such substandard conditions."

* * *

The American Medical Association supports legislation that would amend the Medicare law to expand the circumstances under which payment could be made for services rendered by physicians' assistants.

Payment now is permitted only when the assistant performs the services in the physician's presence. Under an amendment offered in the Senate to HR1, such payment would be allowed where the assistant performs the services without the physician being present. However, an assistant would not be allowed to practice medicine autonomously or without supervision of his physician employer.

HR1 provides for revisions of Social Security, including Medicare and Medicaid.

In a letter to Sen. Gaylord Nelson (D-Wis.), sponsor of the physician's assistant amendment, Dr. Ernest B. Howard, AMA executive vice-president, said:

"We believe the amendment to be salutary. As you know, the AMA is fostering the development of appropriate programs to increase the number of physicians' assistants. It is anticipated that such assistants will serve in various ways, and their role can be a valuable one in helping to meet our health manpower needs. In rural settings, for instance, the assistants may serve in communities or areas removed from the physician's office. The Medex program is one example of the assistant serving to extend the physician's services into adjoining areas. While delineation of the appropriate role of the physician's assistant, as well as appropriate criteria for certification, are now under formulation, and many programs are in the development stage, we believe your amendment will provide stimulus to the expanding acceptance of these programs."

MSMA's Bob Carroll Accepts New Assignment

Robert C. (Bob) Carroll has resigned as an Executive Assistant with the Missouri State Medical Association effective May 1 to accept the position as Executive Vice-President of the Missouri Savings and Loan League, an organization representing savings and loan institutions.

Carroll joined MSMA in May of 1968 after having served as Executive Secretary of the Missouri Good Roads and Streets Association. Prior to his association work, Carroll served eight years as editor of the *Hannibal* (Mo.) *Courier-Post.*

He attended Central College, Fayette and graduated from the University of Missouri School of Journalism, Columbia. He is a native of Clarksville.

The Carrolls and their four children will continue to make their home in Jefferson City, where the Missouri Savings and Loan League is also headquartered.

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Note: Antibiotics used in high doses for short periods of time to treat gonorrhea may mask or delay the symptoms of incubating syphilis. Since the treatment of syphilis demands prolonged therapy with any effective antibiotic, and since Trobicin is not indicated in the treatment of syphilis, patients being treated for gonorrhea should be closely observed clinically. Monthly serological follow-up for at least 3 months should be instituted if the diagnosis of syphilis is suspected. Trobicin is contraindicated in patients previously found hypersensitive to it.

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*Data compiled from reports of 14 investigators. **Diagnosis was confirmed by cultural identification of *N. gonorrhoeae* on Thayer-Martin media in all patients. Criteria for cure: negative culture after at least 2 days post-treatment in males and at least 7 days post-treatment in females. Any positive culture obtained post-treatment was considered evidence of treatment failure even though the follow-up period might have been less than the periods cited above under "criteria for cure" except when the investigator determined that reinfection through additional sexual contacts was likely. Such cases were judged to be reinfections rather than relapses or failures. These cases were regarded as non-evaluatable and were not included. JA72 1848-6

globin; hematocrit and creatinine clearance; elevation of alkaline phosphatase, BUN and SGPT. In single and multiple-dose studies in normal volunteers, a reduction in urine output was noted. Extensive renal function studies demonstrated no consistent changes indicative of renal toxicity.

Dosage and administration: Keep at 25°C and use within 24 hours after reconstitution with diluent.
Male—single 2 gram dose (5 ml) intramuscularly. Patients with gonorrheal proctitis and patients being re-treated after failure of previous antibiotic therapy should receive 4 grams (10 ml). In geographic areas where antibiotic resistance is known to be prevalent, initial treatment with 4 grams (10 ml) intramuscularly is preferred.
Female—single 4 gram dose (10 ml) intramuscularly.

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Human pharmacology: Rapidly absorbed after intramuscular injection. A two-gram injection produces peak serum concentrations averaging about 100 mcg/ml at one hour with 15 mcg/ml at 8 hours. A four-gram injection produces peak serum concentrations averaging 160 mcg/ml at two hours with 31 mcg/ml at 8 hours.
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From the Medical Schools

WASHINGTON UNIVERSITY

Washington University Medical School and Associated Hospitals (WUMSAH) has been renamed Washington University Medical Center. The new name was adopted on March 14, 1972 at a meeting of the board of directors in recognition of the increasingly important role being played by the unified medical center.

In honor of the change, the McDonnell Foundation has made a gift of $156,000 to an endowment fund the McDonnell family had established earlier in behalf of WUMSAH. *James S. McDonnell,* chairman of the board of directors of McDonnell Douglas Corporation, served as chairman of the WUMSAH board from 1964 to 1966.

The Medical Center was formed as WUMSAH in 1962 and comprises Barnard Free Skin and Cancer Hospital, Barnes Hospital, The Central Institute for the Deaf, The Jewish Hospital of St. Louis, St. Louis Children's Hospital and Washington University, including its Medical School, McMillan Hospital, St. Louis Maternity Hospital, Renard Hospital, David P. Wohl, Jr., Memorial Hospital, David P. Wohl, Jr., Memorial Clinics, Irene Walter Johnson Institute of Rehabilitation and the Mallinckrodt Institute of Radiology.

The board of the new Medical Center is composed of *Edward B. Greensfelder,* chairman, and the following representatives of the member institutions: *George H. Capps, Edwin M. Clark, John L. Davidson, Jr., Landon Y. Jones, Dr. M. Kenton King, Dr. Paul E. Lacy, Henry N. McCluney, Spencer T. Olin, Norfleet H. Rand, Raymond E. Rowland, Joseph F. Ruwitch, Edwin G. Shifrin, Dr. Charles A. Thomas* and *Neal S. Wood.* The University's vice-chancellor for medical affairs, *Dr. Samuel B. Guze,* serves as president of the Medical Center.

Two research and development fellowships of $14,900 each have been awarded to faculty at Washington University School of Medicine by the American Diabetes Association. *Stephen L. Pohl,* M.D., and *Joseph Avruch,* M.D., instructors in medicine, are among six awardees designated for 1972-1973 by the Association's research committee. Doctor Pohl, an award winner in 1971-1972, was given the signal honor and received the Elliot P. Joslin Research and Development Award named for the honorary president of the American Diabetes Association from its founding in 1940 until his death in 1962.

Nine research scientists at Washington University School of Medicine were selected by the Federation of American Societies for Experimental Biology (FASEB) to present papers at its annual meeting on April 9-14, in Atlantic City, N. J.

Presentors were *Norman P. Curthoys,* Ph.D., Department of Pharmacology; *Sharon H. Francis,* Ph.D. and *Richard G. Lynch,* M.D., Department of Microbiology; *Donald W. Goodwin,* M.D., Department of Psychiatry; *Craig M. Jackson,* Ph.D. and *Richard D. Mavis,* Ph.D., Department of Biochemistry; *Leon R. Lyle,* M.D., *H. James Wedner,* M.D. and *Jacques U. Baenziger,* third-year M.D.-Ph.D. student, Department of Medicine.

Two others from Washington University, *Harold L. Rosenthal,* Ph.D., School of Dentistry, and *Nobuo Suga,* Ph.D., Department of Biology, also will present papers at the meeting.

ST. LOUIS UNIVERSITY

Dr. Harry W. Schoenberg has been named professor of urology and director of the Section of Urology in the Department of Surgery. Doctor Schoenberg's appointment becomes effective on July 1. The section of urology will be headquartered at the St. Louis University Hospitals.

Doctor Schoenberg is professor of urology at the University of Pennsylvania School of Medicine and chief of the Division of Urology at Children's Hospital of Philadelphia. He is consultant in urology at Veterans Administration Hospital, Philadelphia; the Valley Forge Hospital, Valley Forge, Pa.; and the Pennsylvania Hospital at Philadelphia, where he also is consulting surgeon.

Dr. Harry W. Schoenberg

Dr. Maurice Green, professor of microbiology and director of the Institute for Molecular Virology at the School of Medicine, was a speaker at the Joint USA-Australian Cancer Symposium on

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Current Cancer Research in Melbourne on March 20-22 at the invitation of *Dr. John B. Moloney* of the National Cancer Institute.

Prior to his journey to Melbourne, Doctor Green attended the National Cancer Plan Chairman's Review meeting at the Airlee House Conference Center to review the findings of the last meeting of December, when 68 prominent biomedical scientists met to develop the research project areas necessary to achieve Objectives 2 and 3 of the new National Cancer Plan. On December 23, Doctor Green was present at the White House for the signing of the National Cancer Act of 1971 at the invitation of President Nixon.

Members of Phi Delta Epsilon medical fraternity at the St. Louis University School of Medicine gave physical examinations to about 100 school-age children using the facilities of the St. Louis Veterans Administration Hospital on March 18. The program was established through the joint efforts of the St. Louis University School of Medicine and the Cochran VA Hospital. *Dr. Raymond Slavin*, director of the Section of Allergy and Immunology and *Dr. Simon Horenstein,* professor of neurology and chief of the Section at St. Louis University, were student advisors. *Dr. Rubin Hackmeyer,* chief of the outpatient service at VA Hospital, coordinated the space for the School of Medicine. A total of 22 medical students examined children who reside in the Murphy-Blair area of St. Louis. Sickle cell anemia testing was provided.

Dr. Robert H. Felix, dean, School of Medicine, delivered an address before the 17th annual conference on VA Cooperative Studies in Mental Health and Behavioral Sciences at the Chase-Park Plaza Hotel. It was titled "The Older Veteran: How Do We Keep Him Ambulatory?" Dean Felix also presented the 1972 Honor Award of the Vitale Medical Foundation to *Dr. C. Howe Eller,* St. Louis County Health Commissioner, at a banquet held at Le Chateau Restaurant on April 1. Doctor Felix served as master of ceremonies at the affair.

Dr. Gaetano Bazzano, assistant professor of internal medicine and head, Section of Nutrition, Department of Internal Medicine, participated in the First Annual Clinical Pharmacology Symposium of the University of Miami School of Medicine on March 24. He discussed his research work dealing with "Colestipol in the Management of Digitalis-Intoxicated Patients."

Dr. Thomas F. Frawley, professor and chairman of the Department of Internal Medicine, was visiting professor of internal medicine at the Henry Ford Hospital in Detroit, Mich. on March 13-15.

UNIVERSITY OF MISSOURI-KANSAS CITY

Dr. Maxwell Glen Berry, Kansas City, internist, has been named associate provost for the health sciences at the University of Missouri-Kansas City.

Dr. Maxwell Berry

Chancellor James C. Olson, who made the announcement, said Doctor Berry's responsibilities include supervision of the graduate and continuing education programs relating to the health sciences. Serving as the representative of *Dr. E. Grey Dimond,* UMKC provost for the health sciences, and of the UMKC Medical School to the Division for Continuing Education, Doctor Berry also will have responsibility for coordinating the community hospital activities of the UMKC residency programs.

Doctor Berry will continue in practice. He also serves as a lay Board member of St. Luke's Hospital, a Regent of the American College of Physicians and a Consultant to the Federal Council on Science and Technology-Panel on Health Services Delivery.

An emeritus clinical professor of medicine at the University of Kansas School of Medicine, Doctor Berry last year was honored by that school's Distinguished Alumnus Award. He is the author of the book, "The Third Trimester," and 20 scientific articles in professional publications.

A diplomate of the American Board of Internal Medicine in 1940, he had served in past years as president of professional associations, incuding the American Society of Internal Medicine. From 1965 to 1971, Doctor Berry was governor for Missouri of the American College of Physicians. He also was chairman of the Board of Governors of the American College of Physicians from 1968 to 1971.

UNIVERSITY OF MISSOURI-COLUMBIA

Graduates of the School of Medicine at the University of Missouri-Columbia honored *Dr. John Pletch Adams,* member of the Class of 1943, at their annual MU alumni luncheon at the Muehlebach Hotel in Kansas City on April 7 during the annual session of the Missouri State Medical Association.

Doctor Adams, professor and chairman of the Department of Orthopedic Surgery at George Washington University School of Medicine, Washington, D. C., is the recipient of the 1972 Citation of Merit Award given by the University of Missouri Alumni Association and the School of Medicine.

Doctor Adams was born in the small community of Ashburn, Mo. and spent his early years in Bowling Green. After graduating in 1943 with a B.S. in Medicine degree from Missouri's two-year medical school, he completed the M.D. degree at Washington University in St. Louis, in 1945.

He is a consultant to the director of the National Institutes of Health as a member of the policy committee of Emergency Health Service and is the author of almost 50 scientific publications. His main interests have been in intravenous anesthesia, reconstructive surgery of the hand, children's orthopedics and rheumatology.

Dr. Henry V. Guhleman, Jefferson City, president of the MU medical alumni, presided at the luncheon meeting, and *Dr. William D. Mayer,* dean of the MU-Columbia School of Medicine and director of University Medical Center, presented the Citation of Merit Award to Doctor Adams.

The 1972 Spring Clinical Conference at the University of Missouri-Columbia Medical Center will focus on infectious diseases with a faculty comprised of clinicians, microbiologists, pathologists and a veterinarian. Dates for the conference are May 10-11.

Day-to-day problems encountered by practicing physicians will be discussed, with active participation by those attending the conference. Participating physicians are requested to bring information relative to a problem patient with an infectious disease. Such information might include X-rays, gram stains, and other microbiological materials.

Advance registration is requested. The fee of $45 covers all conference materials. Application has been made to the American Academy of Family Practice for 13 hours of prescribed credit.

Dr. Marcus R. Beck has been named an associate professor in the Department of Pathology and *Dr. Robert R. Robinson* has been named an assistant professor of surgery. Both have assumed their teaching roles and clinical work at University Hospital.

Doctor Robinson, a specialist in plastic and reconstructive surgery, will serve as acting chief of that section when *Dr. Hal Bingham* moves to Florida.

Mrs. Keith D. Jones Elected President of Woman's Auxiliary

Mrs. Keith D. (Ruthanne) Jones, Warrensburg, was installed as President of the Woman's Auxiliary to the Missouri State Medical Association at its annual meeting at the Muehlebach Hotel in Kansas City on April 6-8.

Mrs. Jones, whose report to members of the MSMA will appear regularly in Missouri Medicine, served as President of the Johnson County Medical Auxiliary in 1965-1966, as Sixth District Director of the Woman's Auxiliary to the MSMA in 1968-1970, as Third Vice-President in 1970-1971 and as President-Elect in 1971-1972. In November, 1971, she was installed as national treasurer of the Auxiliary to the Southern Medical Association and she has served previously as Missouri Councilor to this Auxiliary and on other committees.

A volunteer therapist a the Johnson County Memorial Hospital from 1964 to 1966, Mrs. Jones now has her own physical therapy consulting firm and serves as consultant to the Warrensburg Nursing and Medical Center and to a general hospital. In addition, she is vice-president and assistant secretary of the Warrensburg Holiday Inn.

She was a founder of the Johnson County Memorial Hospital Guild and is president of the Johnson County Chapter of Missouri Association of Parliamentarians. She is active in numerous local organizations, including the Order of Eastern Star, League of Women Voters, Chi Omega, Federated Women's Clubs and First Presbyterian Church Women.

Mrs. Jones received her Bachelor of Arts degree in psychology in 1956 and a Bachelor of Science degree in physical therapy in 1958 from the University of Southern California and a Master of Arts degree in English from Central Missouri State College in 1962. In 1956-1957, she was a graduate student at the London School of Economics.

While on a world tour in 1962-1963, she started seven physical therapy clinics in Jordan for OLCOP and MEDICO under the CARE program and did volunteer work in Hawaii, New Zealand, Australia and Great Britain.

Doctor Jones is in family practice in Warrensburg. With their six children, he and Mrs. Jones enjoy water skiing and their home at the Lake of the Ozarks and deep sea fishing while vacationing at their condominium in Hollywood, Fla. Mrs. Jones has received her seamanship diploma from the Kansas City Power Squadron course and is currently taking flying lessons.

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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R. L. JACKSON, M.D. *and* **R. A. GUTHRIE, M.D.,** *Columbia*

The Child With Diabetes

DIABETES MELLITUS in children and young adults is so different from diabetes in the middle-aged or elderly patient that it requires special consideration. The majority of children and young adults are undernourished when overt (clinical) diabetes is first discovered, and the onset of the disease is relatively sudden. The majority of older patients are obese and the onset is frequently insidious. The disease in the child, as contrasted to the disease in the adult, is more severe. The nutritional requirements are relatively greater and constantly changing. Infections are more frequent and severe. Exercise is more erratic, and the emotional pattern is less predictable, especially during adolescence. The term "insulin deficient" is applied to the juvenile type of overt diabetes because available endogenous insulin is decreased or absent. On the basis of these differences, it is safer from the standpoint of practical therapeutics to consider diabetes of the young as distinct from diabetes of the middle-aged or elderly.

Physicians generally recognize the necessity of being able to treat the life-threatening complications of diabetes. Nonetheless, the difficulties encountered in the long-term treatment of diabetes in the child are so numerous that too often the disease is managed inadequately. It is dangerously easy to undertake the treatment of a child with diabetes in such a way as to satisfy the parents and the patient. It is important for the child with diabetes to have careful management in order to conserve his or her health, to permit normal growth and development and to aid him or her in reaching adulthood with the capability of meeting the problems of life. It is estimated that less than 6% of patients with diabetes have the onset of their clinical disease during childhood, which means that only one child in about 2,500 develops the disease before 16 years of age. However, many of these younger diabetics are finding themselves handicapped by serious vascular disease in early adult life. Most internists and ophthalmologists have become convinced that a higher degree of control is desirable to delay or prevent the vascular changes. On the other hand, fewer pediatricians are convinced because most of them treat only a few diabetic children and the vascular changes usually do not develop until early adult life.

Earlier diagnosis, advances in the field of nutrition, refinements in the handling of acute complications, such as acidosis and coma, introduction of refined and prolonged action insulin

Diabetes mellitus in children and young adults is so different from diabetes in the middle-aged or elderly patient that it requires special consideration. The authors discuss the important aspects of testing, diagnosing and management of the child with diabetes, emphasizing the vital importance of educating both the parents and the child in regard to insulin treatment and diet. They also stress the need for wholesome emotional health of the child. Doctors Jackson and Guthrie are from the University of Missouri Medical Center.

preparations and the discovery of potent antibacterial agents with which to combat intercurrent infections are all important factors which have combined to make it possible to attain and maintain control of the disease and, thereby, increase the health status and life expectancy of the child with diabetes mellitus.

Because of the relatively short period of time required for most children to develop diabetes, public detection drives using current methods cannot be expected to identify a significant number of undiagnosed diabetics in this age group. There is a growing body of evidence that glucose tolerance tests of children may be abnormal for a long time (years) before the onset of clinical or overt diabetes. It is, therefore, recommended that the members of a family in which diabetes has occurred test their urine for glucose periodically, particularly during any febrile illness, and have periodic oral glucose tolerance tests.

The best time to detect diabetes in prediabetic children is during the stress of an infection. Experience with a number of the siblings of our patients has led us to develop a simple and relatively effective way to detect chemical diabetes in children. Consequently, in families in which there is known diabetes, we recommend the following procedure to be carried out on the children during an infection:

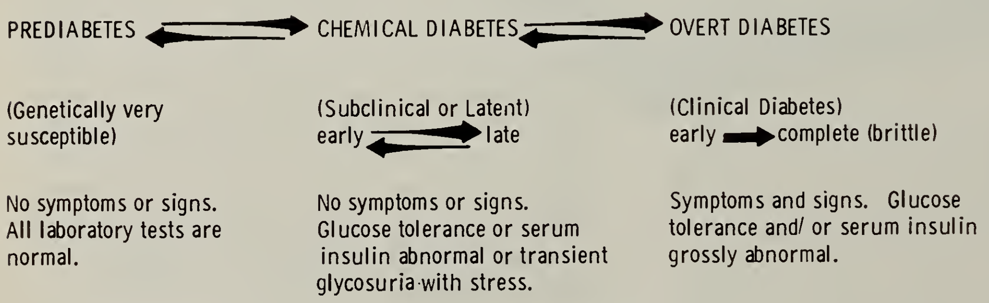
> *Children under six years of age:* Drink one half glass (4 oz) of orange juice with one tablespoon of sugar added, followed in 20 minutes by one half bottle (3 oz) of a sweetened cola.
>
> *Children over six years of age:* Drink one glass (8 oz) of orange or grape juice with two tablespoons of sugar added, followed in 20 minutes by a small bottle (6 oz) of a sweetened cola. After two to three hours, have the child void and test the urine for sugar. If the child has a positive urine test during this period of stress, a glucose tolerance test should be done as soon as practicable.

The early identification of children when chemical diabetes years before they have any symptoms or signs of the disease is providing us with an opportunity to observe the natural pattern of development of the disease, to extend our knowledge of the pathophysiology of the disorder, to establish criteria to define the various stages of the disease and to evaluate measures designed to alter the progression of the disease to the advanced, overt stage in which insulin therapy is required to control the disease. It is well to remember that all adults were once children. If we can detect the child destined to develop the clinical disease in the early years of life, we should be able not only to prevent progression of the disease but to better control transmission of the disease to future generations. The pattern of development and the terms used are delineated in Fig. 1.

Clear-cut examples of the prediabetic state as an identical twin of an overt diabetic child can yield valuable information and merit careful investigation. However, such well defined examples of the prediabetic state are few. Another group from whom valuable data have been obtained are the siblings of children with overt diabetes mellitus. The expected incidence of diabetes in this group of children should be at least 25%; however, it may be higher, depending on the incidence of the homozygous diabetic heredity in the parents. Our studies to date suggest that more than 25% of siblings of children with overt diabetes have abnormal glucose tolerance tests. Longitudinal observations are needed to establish more precise criteria for diagnosis.

In the Pediatric Department of the University of Missouri, there are about 200 children with chemical diabetes under close observation. The diagnosis of chemical diabetes is based on two or more abnormal oral glucose tolerance tests, separated by at least a two-month time interval. Both sugar and insulin values are done during a standard oral glucose tolerance test.

The normal range of blood sugar and serum insulin values for normal children are depicted



No symptoms or signs. All laboratory tests are normal.

No symptoms or signs. Glucose tolerance or serum insulin abnormal or transient glycosuria with stress.

Symptoms and signs. Glucose tolerance and/ or serum insulin grossly abnormal.

Fig. 1 The pattern of development of diabetes mellitus.

in Fig. 2. We have found these graphic curves depicting ranges of normal values for capillary blood sugars and serum insulin very useful for plotting and interpreting tests on individual children.

The following criteria are being used to classify the abnormalities in the blood sugar values during the oral glucose tolerance tests:

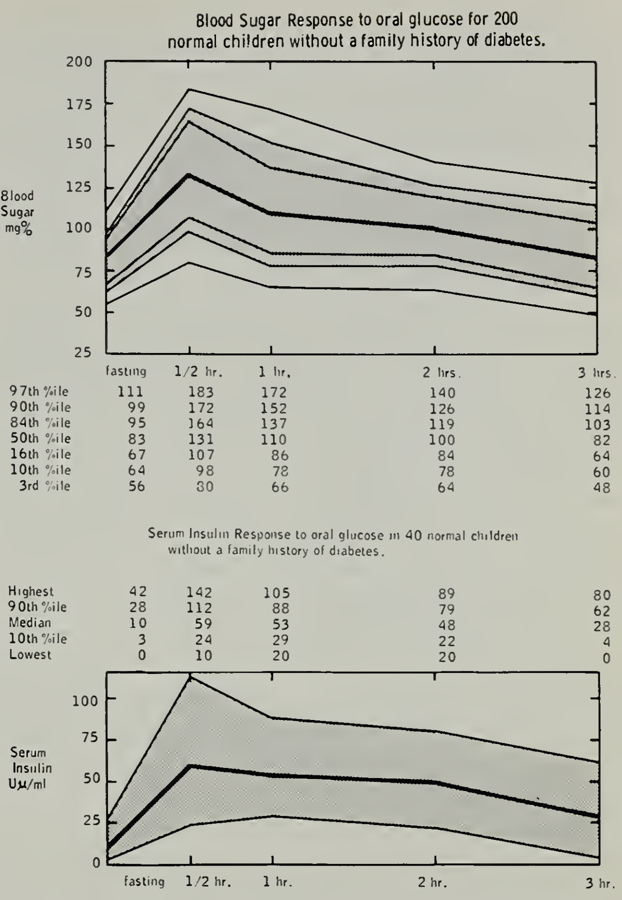
I. *Chemical Diabetes:* (a) Three blood sugar values at or above the 97th percentile at first and second and third hours; (b) Two values at or above the 97th percentile at first and second hours and a value below the 50th percentile at the third hour; (c) One value at or above the 97th percentile at the first or at the second hour and another value at first and second hours above the 90th percentile; and/or a value below the tenth percentile at the third hours. To establish a diagnosis of chemical diabetes, the test must be confirmed by another abnormal test after a two months period of time.

II. *Probable Chemical Diabetes (highly suspect):* (a) Two blood sugar values at or above the 90th percentile at first and second hours and a value at third hour above the 90th percentile or below the tenth percentile; (b) A value at third hour below the third percentile (other values within normal range).

III. *Possible Chemical Diabetes (suspect):* (a) Two or three blood sugar values at or above the 84th percentile at first, second and third hours; (b) Two blood sugar values at or above the 84th percentile at first or second hours and another blood sugar value below the 16th percentile at the third hour.

In the early stages of chemical diabetes, there may be an increased insulin response with only minor changes in the blood sugar values. The more typical change in serum insulin is to have a delayed response with elevated values at three hours. As the disease progresses to the late stage of chemical diabetes, there is a progressive decrease in insulin response and two or more blood sugar values fall outside the 97th and third percentiles of the distribution of normal values.

The progressive decrease in insulin response of children with advanced stages of chemical diabetes to intravenous glucose and glucagon and the excellent response of children with early diagnosis of overt diabetes to insulin suggest that substitution insulin therapy may be indicated prior to the onset of the clinical form of the disease. Additional studies are necessary to observe the natural pattern of development of diabetes in children in order to establish more precise criteria to define the various stages of chemical diabetes and to evaluate various methods which may delay or prevent the progression of chemical diabetes to the overt form of the disease.



Blood Sugar Response to oral glucose for 200 normal children without a family history of diabetes.

	fasting	1/2 hr.	1 hr.	2 hrs.	3 hrs.
97th %ile	111	183	172	140	126
90th %ile	99	172	152	126	114
84th %ile	95	164	137	119	103
50th %ile	83	131	110	100	82
16th %ile	67	107	86	84	64
10th %ile	64	98	78	78	60
3rd %ile	56	80	66	64	48

Serum Insulin Response to oral glucose in 40 normal children without a family history of diabetes.

Highest	42	142	105	89	80
90th %ile	28	112	88	79	62
Median	10	59	53	48	28
10th %ile	3	24	29	22	4
Lowest	0	10	20	20	0

Fig. 2 Blood sugar and serum insulin during the standard oral glucose tolerance test in children.

Our experience would indicate that every child with overt diabetes should receive insulin therapy as soon as the diagnosis is confirmed. The insulin requirement varies, depending on how early the diagnosis is made and how soon insulin is given. The earlier the diagnosis is made, the lower the insulin needed and the easier it will be to attain and maintain a high degree of control with little risk of hypoglycemia.

For the initial regulation of the juvenile diabetic, hospitalization is desirable, not only for the treatment of complications, but also to reestablish the nutritional status, to determine the maintenance insulin requirement and to educate both the parents and the child. The undernourished, young diabetic patient requires hospital care for a period of weeks to attain these goals.

Once insulin treatment is initiated, most diabetic children have a rather uniform pattern of recovery. Prior to insulin therapy, the child with diabetes has depleted nutritional stores; in the initial phase of management, he is rebuilding body tissues and stores to normal. During this time, his requirements for insulin and calories, as well as other essential nutrients, are higher than maintenance requirements.

Sixty-three children with recent onset of overt diabetes have been studied to compare differences in responses of children with early diagnosis and prompt insulin treatment with children with delayed diagnosis. All children were hospitalized from two to six weeks and were given insulin and dietary management until the insulin dosage was stable and the child had re-established normal weight for height. Each child has remained under close observation in our clinic with urine and blood tests. A daily home record, including three to four urine tests, was kept by reliable parents. It is well known that the exogenous insulin requirement of most children with recent onset of diabetes decreases rapidly to a relatively low level for a variable period. This state of partial remission is known as the "honeymoon period." During this time, glycosuria can be controlled without insulin reactions. We have established in published studies that the daily insulin requirement of children after the honeymoon period increases to 0.35 to 0.60 units/lb/day.

The maintenance insulin requirement needed to sustain a high degree of control was found to vary depending on how early the diagnosis was made and how soon insulin treatment was begun. In 23 children with very early diagnosis and treatment, the insulin requirement was as low as 0.05 to 0.10 units/lb/day and the period of partial remission was as long as four years. In 12 children admitted with severe keto-acidosis who had delayed diagnosis and delayed insulin treatment, the period of hospitalization was longer, the insulin requirement was 0.25 to 0.40 units/lb/day and the period of partial remission was as short as two months. The responses of the other 28 children were intermediate but confirmed the relationship. The time required for diagnosis, as well as for the duration of the "honeymoon period," was related to the socio-economic status of the families.

The major difference in the management of children with diabetes in our clinic, as compared to most other pediatric clinics, is that insulin is given as often as necessary to attain and maintain good control. We have found that at least two doses of intermediate acting insulins are necessary to provide available insulin throughout the entire day and to have sufficient insulin available so that the child can eat meals and snacks in keeping with the usual food pattern of American children. The distribution of insulin and a corresponding dietary plan are shown in Fig. 3.

The basic meal pattern used for children with diabetes in our clinic evolved from observing the eating habits of normal active children and from accumulated experience gained by treating many children with diabetes. The two-dose insulin regimen not only makes it possible for the child

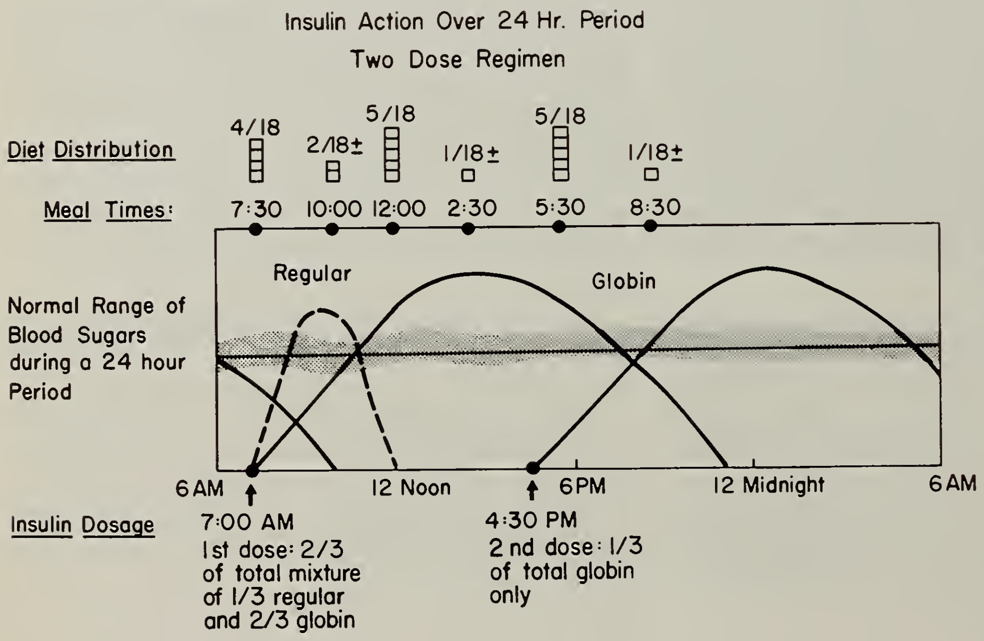


Fig. 3 Insulin action over 24-hour period—Two Dose Regimen.

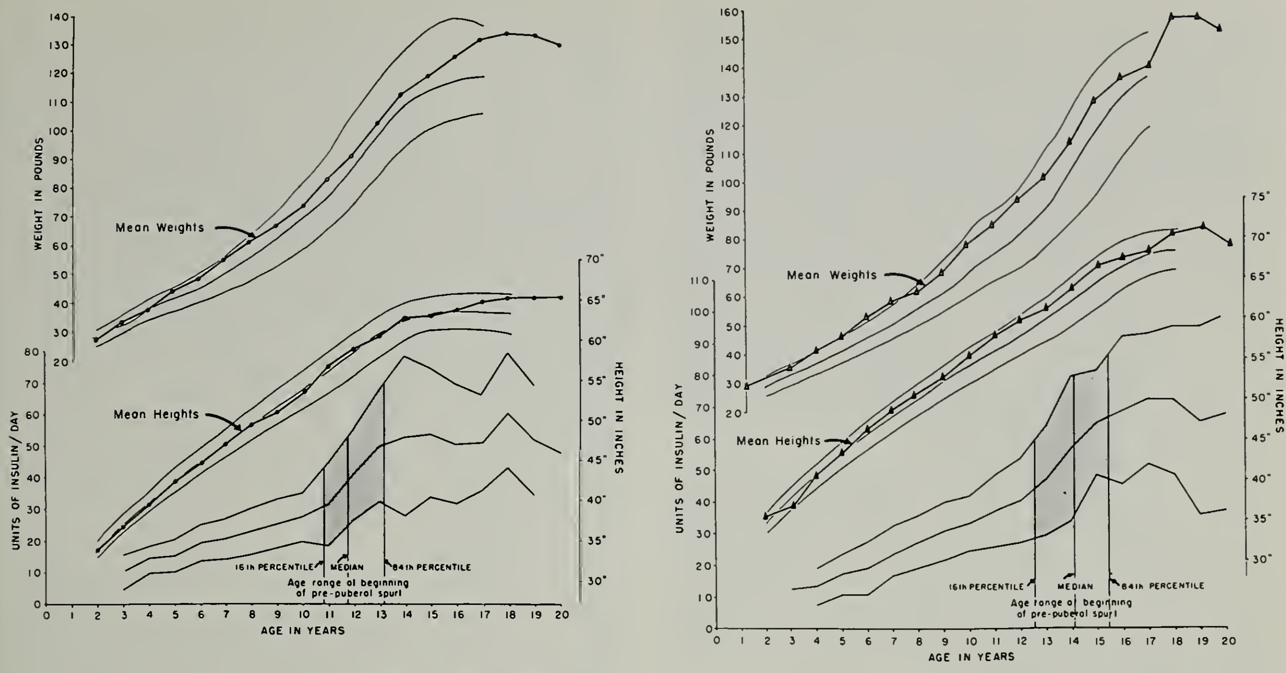


Fig. 4 *(Left)* Mean body weight and height and range of insulin requirements in a group of well-controlled diabetic girls. *(Right)* Mean body weight and height and range of insulin requirements in a group of well-controlled diabetic boys.

to utilize a normal diet eaten at the usual times during the day, but also avoids the danger of insulin reactions, provided the food intake is adjusted for variations in physical activity.

As previously stated, the amount of insulin required and the duration of the period of metabolic recovery depend on how long the state of hypoinsulinism and catabolism have persisted prior to institution of therapy.

As previously stated, it is usually possible to attain and maintain complete regulation (without insulin reaction) and with a relatively low dosage of insulin during the early months or years after the onset of overt diabetes. In this so-called "honeymoon" period, the child's pancreas is still producing some insulin. After the disease progresses to the state at which the child is producing little or no insulin (brittle stage), then it becomes necessary to allow minimal glycosuria to avoid insulin reactions.

It is important to know and to be able to predict future insulin requirements of a given child. There is a relationship between the changing insulin requirement and growth. The insulin requirement gradually increases in the prepubertal child as a result of increase in body weight, the ratio of insulin dosage to body weight increasing only slightly, if at all. During the prepubertal growth spurt, there is a sharp rise in insulin requirement and, during this time, control is more difficult to maintain. After puberty, the insulin requirement decreases to somewhat lower levels and then remains relatively constant during adulthood. The age of onset of the disease does not seem to influence significantly the insulin requirement per unit of body weight. As adulthood is reached, it is important that insulin dosage and caloric intake gradually be reduced to the person's adult requirement. The adolescent girl is especially prone to become obese if her insulin and caloric intakes are not adjusted to a lower requirement in keeping with her age. It is much easier to prevent than to treat obesity.

A knowledge of insulin requirements and growth at varying age periods of well-controlled diabetic patients helps in the prediction of insulin and nutritional requirements for maintaining good control of the disease and a normal growth pattern. Fig. 4 indicates the average and standard deviation of insulin requirements of girls and boys from infancy to adulthood. Also plotted on this chart are mean heights and weights of a group of well-controlled diabetic patients in relation to the standard Iowa Growth Charts.

On these two charts, the "zones of rapid growth" are marked to indicate the relation of insulin requirements to periods of rapid growth. Up to ten years, the growth patterns of boys and girls are quite similar, in contrast to the great difference after ten years. The insulin requirements reflect the periods of similarity and differences in the sexes and clearly show a relationship of insulin requirement to growth. The insulin requirement of girls increases rapidly after the age of ten years, concomitantly with their prepubertal growth spurt, and decreases after the period of rapid growth. The insulin requirement for boys increases rapidly after 12 years, concomitantly with their prepubertal growth spurt, and both decrease gradually as adulthood is reached. As the child's insulin requirements increase with growth, many parents may fear that the disease is becoming more severe unless they have been informed that this will be a natural development.

In our experience there is little if any place for oral hypoglycemic drugs, such as tolbutamide and phenformin, in the treatment of the insulin deficient overt juvenile diabetic. We are doing a research study to evaluate the effect of giving tolbutamide to children with less advanced stages of chemical diabetes.

Children with early stages of chemical diabetes who have not responded to dietary supervision over a six-month period of time are included in the study and matched for age, sex, body build and degree of abnormality of oral glucose tolerance tests. After baseline studies consisting of serial oral glucose tolerance tests, intravenous glucose with glucagon tolerance tests and intravenous tolbutamide tests, the children are given tolbutamide from numbered bottles in a dose of 20 mgm/Kg/day or a placebo. Oral glucose tolerance tests are repeated every three months and intravenous tolbutamide tests every six months. Electron microscopic studies of skeletal muscle to measure thickness of capillary basement membranes, fluorescein retinal photography and nail bed capillary photography also are being done to evaluate vascular status of these children.

Eight pairs of children have been under observations as of January, 1971, and four of the eight pairs have been under observations for more than one year of time. Of these eight children, four have improved, three have had no change and one has had progression of the disorder. All have remained asymptomatic and aglycosuric. To date, none of the children with chemical diabetes has evidence of vascular disease. Additional observations are necessary before conclusions can be made regarding the effectiveness of tolbutamide for the treatment of children with chemical diabetes.

In the initial instruction of the parents and the child, it is most important to teach them how to use high quality common foods in preparing simple menus. The initial menu may include only one or two substitutions from various food groups. Additional substitutions are made at subsequent office visits at whatever rate the parent and child desire and understand. While receiving the first dietary instructions, the parent also is learning how to measure accurately and to give insulin, as well as to test the urine and to make minor adjustments in insulin dosage. Parents gain confidence and grasp instructions more readily when using a plan which avoids the problem of learning too many details at once. As the parent and child gain experience and insight, they are ready to learn how to adjust the regimen to provide for variations in daily activities.

In the beginning, in order to learn the caloric content of different portions of food, the mother and the diabetic child, if old enough, are taught how to weigh or measure the foods for the diet. They soon learn how to estimate basic foods. For variety and to stimulate interest, recipes combining the basic foods used in the diet are given to the parents. Once good nutritional status has been established and growth is following a fairly normal pattern, caloric requirements can be estimated easily and adjusted to meet the individual child's needs. As previously stated, the distribution of the food into meals is designed to approximate the usual eating habits of American children. The only difference in the diabetic child's dietary program as compared to the nondiabetic child's is that the diet is planned so a predictable caloric intake is taken in relationship to the type and amount of insulin that has been administered in order to avoid insulin reactions and glycosuria insofar as practicable. The use of concentrated sweets, except for limited amounts in meals, are not advised since sufficient insulin is not available fast enough to handle a large intake of sugar. It is not practical to give an extra injection of fast action insulin. We stress the fact that concentrated sweets are poor quality foods for any child to eat. We discourage the use of diabetic drinks, candy and gum except for special occasions.

Physical activity and its relation to food intake and insulin are important aspects of diabetic management. During the period of regulation in the hospital, every effort is made to maintain as constant and normal a pattern of physical activity as possible as it is difficult to adjust food intake to changing patterns of physical activities in the hospital.

After the insulin requirement has been established in the hospital and the child returns home, it is advisable to keep the dosage of insulin as constant as possible from day to day and to make additions or subtractions of food with variations in exercise rather than to increase or decrease the insulin.

It is impossible to advise specific adjustments of the diet for a given child for a particular period of activity or inactivity. This must be learned by the parents and child by a process of trial and error, making sure that errors are such as to produce mild glycosuria rather than insulin reactions. The need for increased food with increased physical activity must be emphasized in the education of the new diabetic patient. The need for more food usually begins the first day at home from the hospital, when there is invariably increased physical activity. At each outpatient clinic or office visit, this phase of management is rediscussed and a program is gradually evolved to fit the pattern of each child's life. In general, it is preferable to give more or less food with the snacks. Although additional food is advised for increased physical activities, the ingestion of excessive food outside the regular dietary pattern is discouraged.

The well diabetic child may be as active as any child with whom he plays. It is not necessary to limit his physical activity; it is necessary, however, to understand his need to have more or less food depending on whether exercise is increased or decreased.

The emotional pattern of a child and, therefore, of the adult becomes fairly well established during the early years of life. With increasing age, it becomes more difficult to alter his pattern. The emotional status of any patient with diabetes profoundly affects the regulation of his disease. In order to be happy, the child must learn how to use help and guidance from others to gain self-control without losing self-esteem. The emotional health of the child invariably reflects the emotional health of the parents. Consequently, the doctor must help parents as much as or more than the child. If unwholesome relationships exist between the child and his parents, these become exaggerated during adolescence, when self-discipline is difficult. There is need for self-expression and independence, and adolescents have a strong desire to be like other members of the group.

Any limitation is irksome to the adolescent; the routine that diabetes imposes is often viewed as bothersome or even useless. To a great extent, the problems of the adolescent can be prevented if opportunities for self-direction are given to the child as soon as he or she shows the capacity to handle them. To remain well, the child with diabetes must learn self-control and must assume the responsibility of caring for himself or herself. The teenager with diabetes has the same needs as the normal youngster and has as much capacity for acquiring self-direction. It is very important that the child and his parents see clearly the truth concerning his disease as soon as possible and that they face the issue squarely. All must admit that the child has a disability for which there is no known cure; nevertheless, the condition is one that need not interfere with a useful, happy life and the child can remain in good health, provided he receives modern treatment. The truest type of sympathy for the child is that which helps him to meet the situation bravely; sympathy of any other type will harm, not help. The child who is emotionally well at the time he develops this disease usually has little difficulty in accepting his condition and in maintaining a high degree of diabetic control. The child with diabetes, like other children, needs security, affection and applause as well as discipline, for to be happy, he must learn to assume responsibility concomitant with his age. On occasion, he, like other children, will do something that he knows is wrong or will neglect to do something that he knows he should do. When this occurs, punishment should be given immediately. It is equally important, however, that parents should forgive and forget once the punishment has been administered.

As the child matures physically, he also matures spiritually, learning to appreciate his own worth and that of his fellow beings, thus enriching his own life and that of others. This phase of a child's development is too often overlooked. The child who develops virtues rather than vices has peace of mind and soul, can accept his disease and can make unlimited contributions to society.

The parents should have as much information about the nature of the disease, the theory of management and the recognition and treatment of complications as the doctor can impart. The doctor should use all facilities and personnel available to him in evaluating and educating the family. Not only the family, but often the community, needs to be educated if the patient is to make a good adjustment. The services of the dietitian and nursing staff of the hospital are always needed. Many times, other professional workers, such as the medical social worker, psychiatrist or public health nurse, will be needed. A handbook of instructions for parents should be given to the parents as soon as the diagnosis is confirmed to help prepare them for more detailed instructions later on. Responsibility for management rests on the parents; the physician should instruct and help to qualify them. As soon as the child is old enough, he or she should be similarly trained. The physician should investigate periodically how well the parent or patient is carrying out instructions, such as sterilization procedures, injection site rotation, storage and mixing of insulins, ability to read labels and syringes correctly and other procedures, even though a competent nurse or another qualified person originally gave these instructions. This evaluation should be a routine part of each office visit.

Adjustments of insulin and diet must be individualized; they cannot be made without parental understanding of all aspects of diabetic management, including routine care and illness. Home record sheets are helpful in this respect, since they are used to record daily insulin dosage, urine tests and remarks about variations in food, exercise, emotions and insulin reactions. This information offers the best means of teaching the child and his parents the interrelationships of insulin, food, exercise, emotions and infections in the management of the disease.

The parents should be given adequate instructions so that if the child's appetite and demands for food and insulin increase rapidly, as in certain periods of growth, both the diet and the insulin can be increased between office visits without consulting a doctor, nurse or dietition. This is possible only when the parents understand the disease, and this depends on their ability to learn and how well they have been instructed.

The regimen outlined is desirable and attainable. Such a plan of treatment results in fewer difficulties, is more convenient and, over a long period of time, conserves the child's health. Each patient finally reaches a compromise between that which is prescribed and that which his home environment makes possible. If the child has a noncooperative and indifferent family, evidence indicates that greater compromise must be made to the patient's disadvantage.

When the disease is not well controlled, serious degenerative changes have been found to develop. They include retardation of growth, progression of the disease itself and degenerative vascular changes, such as diabetic retinitis and arteriosclerosis. Observations of a group of 140 juvenile diabetic patients with a duration of their disease ranging from 15 to 29 years have indicated that duration of the disease is not the deciding factor in the development of retinopathy. The degree of control of the diabetes was the only identifiable factor bearing a constantly significant relationship to the incidence and severity of this complication. However, it is easier to demonstrate that temporary periods of loss of control produce coma and even cataracts than that long-term good control will prevent or delay vascular complications.

Until more knowledge concerning the pathologic physiology of the disease is available, good control offers the best means of delaying or averting degenerative changes. Recent advances in research are encouraging. We are learning much about human genetics as well as the various environmental factors which influence the course of diabetes. Basic studies are elucidating the mechanism of synthesis and release of insulin from the beta cells of the pancreas as well as interrelationships with other endocrine and humoral factors. As stated before, the early identification of chemical diagnosis provides an opportunity to observe the natural pattern of development of diabetes and to evaluate different measures which may alter the progression of the disease. For example, it is possible that tolbutamide may be useful in the treatment of children during the early stages of chemical diabetes. Recent evidence suggests that the metabolism of some trace elements may be altered in the diabetic state. It has been shown that some diabetics exhibit an increased urinary excretion of zinc and chromium as compared to normal subjects. Likewise, it is known that the refining of certain staples in our diet, i.e., flour and sugar, leads to a considerable loss of the trace elements originally present in the natural plants. The role of trace elements in the pathogenesis of diabetes is unknown at present. However, adequate dietary intake of essential trace elements may eventually prove to be desirable or beneficial or both to the individual predisposed to diabetes. It is important for the doctor to retain an optimistic outlook in caring for children with diabetes.

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Evaluation of Aorto-Coronary Bypass Grafts With the Doppler Ultrasonic Flowmeter

Realizing the limitations of radiographic visualization, the authors recommend the Doppler ultrasonic flowmeter as a more effective tool for intraoperative and postoperative evaluation of aorto-coronary bypass grafts. They cite the advantages of safety, simplicity, convenience and accuracy and the fact that the Doppler technique can be repeated anytime in the office or outpatient clinic. The authors are from the Section of Thoracic and Cardiovascular Surgery, University of Missouri School of Medicine.

Aorto-coronary bypass is one of the most effective procedures currently used for direct myocardial revascularization in patients with occlusive coronary artery disease. Adequate blood flow in the graft is essential to maintain its patency and to ensure adequate perfusion of the affected myocardium. The flow in a graft is governed by several factors, such as the size of the graft, the size of the anastomoses, the degree of distal patency in the coronary vascular bed and the cardiac output. Favaloro *et al*[1] suggested 40 ml/min as an minimum flow in an aorto-coronary bypass graft if its prolonged patency should be expected.

Radiographic visualization of the graft merely indicates its patency without giving information about the amount of blood flowing through it. Direct measurement of the blood flow in the graft with the electromagnetic flowmeter is convenient and accurate. This method, however, can only be used during the operation with the chest open and the vessel directly exposed. The measurement with the electromagnetic flowmeter cannot be repeated for postoperative follow-up examinations, and no comparative values can be obtained.

We realized the limitations of the above method and tried to find an alternative technique which would provide information about the patency and approximate flow rate during the operation and, also, which might be used for rough follow-up screening during the postoperative period.

The Doppler ultrasonic flowmeter fulfills these requirements. The Doppler technique is simple, atraumatic and convenient and, therefore, can be repeated anytime in the office or the outpatient clinic, thus allowing more close observation and accurate follow-up.

Methods of evaluation

A Doppler apparatus Model 806 (Manufactured and supplied by Parks Electronics Lab., Beaverton, Ore.) is utilized with a probe which can be gas sterilized for intraoperative use. Upon completion of the bypass graft procedure and while the chest is still open, the sterile Doppler probe is applied directly to the graft (Fig. 1) and the flow velocity, as represented by the frequency of the Doppler shift in cycles per second, is determined. This value is directly read from the scale of the apparatus. The diameter of the graft is then measured and the flow rate is calculated from the formula, $Q=F_d(d^2)(1.414)(10)^{-2}$, in which F_d is the frequency of the Doppler shift in cycles per second and d is the diameter of the vessel in millimeters. Q is equal to flow rate in ml/min. The calculated flow rate

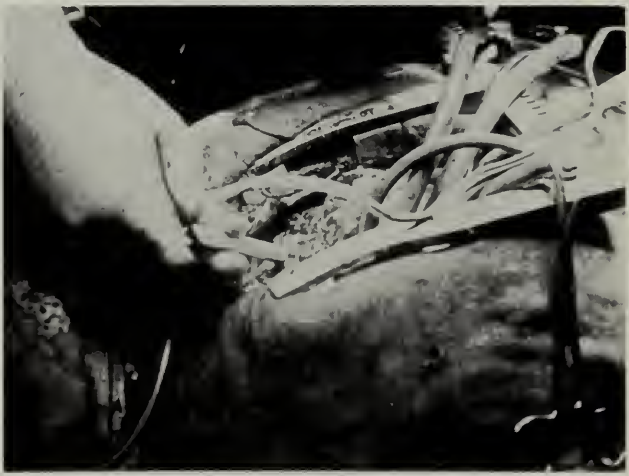

Fig. 1 Evaluation of aorto-coronary bypass graft with the Doppler probe.

is used for immediate evaluation of graft's efficiency and, also, as a base line for comparison with later values obtained during postoperative follow-up examinations.

For postoperative evaluation of the graft, the Doppler probe is used transcutaneously on the anterior chest wall. The direct reading of the flow velocity usually is adequate for a rapid simple screening. Flow velocity is directly proportional to flow rate. If the diameter of the graft is assumed to remain the same, the velocity reading can be compared with previous readings thus providing a rough estimation for the flow situation in the graft.

With the transcutaneous Doppler probe, the flow in the graft can be easily distinguished from the flow in the underlying aorta and cardiac chambers due to the different flow pattern in these different structures.

Discussion

Direct myocardial revascularization using an aorto-coronary bypass graft is now considered the most effective surgical approach for treatment of patients with occlusive coronary artery disease.[2] This technique could be used in 97% of all patients requiring surgical treatment.[3] The angiographic visualization of the graft is still the best document for its patency. Selective angiography of the coronary circulation, however, has certain limitations. The procedure carries certain risk and inconvenience and is impractical for frequent repeated use. It also fails to offer accurate information about the volume of blood flowing in a graft.

In 1961, the Doppler ultrasonic flowmeter was described as a tool for the determination of blood flow in animals.[4] A few years later, the application of the Doppler technique in the evaluation of occlusive arterial disease was reported.[5] Various indications for the use of the Doppler method in patients undergoing peripheral vascular reconstruction and in cardiac surgical patients, such as detection of circulating microemboli and evaluation of cannulation site, were recently reported.[6-8] The evaluation of the blood flow in aorto-coronary bypass grafts is another significant indication for the utilization of the Doppler technique where it can be used for intraoperative and postoperative flow measurements. The Doppler technique is atraumatic, simple, convenient and accurate. It could be repeated anytime and anywhere without difficulty.

Summary

The Doppler ultrasonic flowmeter is described as a tool for intraoperative and postoperative evaluation of aorto-coronary bypass grafts. The advantages of the technique, such as safety, simplicity, convenience and accuracy, are pointed out.

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A Reminder!

MSMA Scientific Sessions Approved for AAFP Credit

The scientific sessions held during the 114th MSMA Annual Session on April 6-9, 1972 at the Muehlebach Hotel in Kansas City were approved for 36 elective hours of continuing medical education by the American Academy of Family Physicians.

LESLIE WISE, M.D., ***St. Louis***

Exsanguinating Bleed From Esophageal Varices —An Unorthodox Surgical Approach

Case Report

This is a case report of the successful management of a cirrhotic patient with exsanguinating hemorrhage from esophageal varices, using a surgical subcardiac porta-azygos disconnection. Doctor Wise is Associate Professor of Surgery, Washington University School of Medicine.

BLEEDING FROM ESOPHAGEAL VARICES due to cirrhosis is a highly lethal condition. Recently, a patient with an exsanguinating hemorrhage from esophageal varices was admitted under our care. He already had an attempted, but unsuccessful spleno-renal shunt, in addition to a porta-caval shunt failure. This is a report of our management of this case.

CASE REPORT

A 30-year-old white male school teacher was admitted to Barnes Hospital on the Medical Service at 11 PM on Oct. 27, 1970 with a two-day history of recurring hematemesis. On admission he was lethargic, but oriented. He was not in shock and was not obviously jaundiced. His blood pressure was 90/70 and his pulse rate was 96 beats per minute. His liver was 9 cm below the costal margin. The laboratory values showed a hematocrit of 30%; hemoglobin, 9.2 gm/100 ml; white blood cell count, 8,800/cu mm; electrolytes and blood urea nitrogen within normal limits; prothrombin activity, 80%; and platelet count, 70,000/cu mm. Other laboratory values were albumin, 3.2 gm/100 ml; bilirubin, 2.5 mg/100 ml; alkaline phosphatase, 10 units/100 ml; and serum glutamic oxaloacetic transaminase (SGOT), 50.

The patient was last well in 1963 when he had pneumonia, for which he was treated with chloramphenicol in another hospital. He recovered. Shortly afterward, he developed an acute surgical abdominal problem and, again in another hospital, he underwent exploratory laparotomy which revealed hemorrhagic infarction of a 10 cm segment of small bowel, which was resected. In addition, an appendectomy was performed. Postoperatively, he developed multiple wound abscesses, which responded to conservative management. Thrombocytopenia was noted at the time, and bone marrow biopsy was consistent with a diagnosis of idiopathic thrombocytopenic purpura (ITP). He was given a course of prednisone.

There was no consistent improvement in the platelet count with prednisone therapy, so this was discontinued. In 1965, the patient had a "flu-like" syndrome associated with icterus. Several students in a school in which he had taught had hepatitis at the time. In 1967, he had a recurrence of his "flu" with icterus and was admitted to Barnes Hospital. At this time, he was found to have spider angiomata, ecchymoses, ascites and hepatosplenomegaly. Barium swallow revealed esophageal varices. A diagnosis of chronic active hepatitis with secondary thrombocytopenia was made, and prednisone therapy was resumed.

He was readmitted to Barnes Hospital in March and in September of 1968 with recurrent hematemesis and melena. A sliding hiatus hernia, peptic esophagitis and varices were noted on gastroscopy. Liver scan showed a diffuse decrease in uptake. Liver biopsy showed chronic active hepatitis with postnecrotic cirrhosis. Barium swallow again confirmed his esophageal varices. He required three units of blood during the admission and in April, 1969, he required two more units of blood. His platelet count at that time was 43,000. On Oct. 31, 1969, a splenorenal shunt was attempted, but due to the small size of the splenic vein, this apparently was not feasible and only a splenectomy was done. Eleven days postoperatively, the patient had recurrent hematemesis. Therefore, on Nov. 25, 1969, an end-to-side portacaval shunt was done. The final portal pressure was 5 cm saline. At least one gallstone was palpated in the gallbladder, but it was elected not to remove it for fear of contaminating the anastomotic site. On Dec. 12, 1969, hepatic precoma supervened and the patient was treated in the usual manner. Encephalopathy persisted for about three weeks, when he gradually improved. On Jan. 17, 1970, he had a further episode of hematemesis, which was treated conservatively. He was discharged on Jan. 28, 1970.

Following his present admission, his bleeding continued and he was given 20 units of pitressin in 100 ml of 5% dextrose in his intravenous infusion.

By 7 AM the next morning, he was receiving his fifth unit of blood, his blood pressure was 80/50 and he was becoming increasingly drowsy. At 8 AM, a Linton (modified Sengstaken-Blakemore) tube was passed, the gastric balloon was blown up with 350 ml of air and two pounds of traction were applied. His bleeding continued and in addition to numerous hematemeses, he also was passing massive amounts of fresh blood rectally. Surgical consultation was obtained at 1 PM. At that time, he had been given 21 units of whole blood, five units of fresh frozen plasma and 30 mg of aquamephyton. His blood pressure at 1:15 PM was unrecordable. He was given more blood and was taken to the operating room, where, while receiving corticosteroids, a subcardiac porta-azygos disconnection was performed, using an abdomino-thoracic approach.

During the operation, he was given five more units of blood, two units of fresh frozen plasma, konyne, platelet packs and aquamephyton. Soon after the operation, he was awake and responsive; his blood pressure was 105/80. He had no further hematemesis. The day following his operation, he had an episode of nasal bleeding and he required two units of blood and nasal packing. During this episode, he aspirated some blood and he developed aspiration pneumonitis, which was treated with corticosteroids. Because of low pO_2 due to respiratory insufficiency, the trachea was intubated and an Emerson respirator was used. The tube was removed after 72 hours. His postoperative course was further complicated by ascites, pleural effusion and a wound abscess. The pleural effusion (which was probably due to ascitic fluid seeping through the diaphragmatic wound) was treated with a chest tube for 72 hours. The ascites responded to conservative measures (salt restriction to .25 gm per day, spironolactone [Aldactone] and furosemide [Lasix]) and the wound abscess had to be drained.

The patient was last seen in June, 1971, i.e., a seven-month follow-up. He was asymptomatic, had no ascites and no recurrence of his hemorrhage.

Discussion

The emergency management of bleeding esophageal varices is still controversial. In a fairly recent study, Orloff[1] reported the results of a prospective study with three forms of treatment; patients who had emergency porta-caval shunts or transesophageal ligation of their varices each had a 50% hospital mortality, whereas patients subjected to medical therapy with a balloon tamponade had an 80% hospital mortality.

There is an increased incidence of peptic ulceration in patients with cirrhosis and, therefore, it is important to exclude bleeding from this source, even in patients who are known to have esophageal varices. An upper gastrointestinal series usually will give the answer. If facilities are available for angiography, then this should be performed during the acute bleeding. If this demonstrates the bleeding site (as it usually does if the rate is over 2 mls/min), then the diagnosis, of course, is unequivocal. The Sengstaken-Blakemore tube may also be used for diagnostic purposes. If the bleeding stops following its application, then it is most likely that it came from varices. If necessary, esophagoscopy may be performed during the acute stage; trauma from this procedure is unlikely to precipitate further bleeding.[2]

The aim of treatment is resuscitation, control of bleeding and minimization of "ammonia" intoxication. It is important to recognize that patients with cirrhosis are often deficient in many of the clotting factors. Therefore, apart from adequate volume replacement, the deficient clotting factors also should be replaced. If possible, fresh blood should be given. Fibrinogen is synthesized in the liver, but impaired synthesis is rare even in severe liver failure. The only common cause of fibrinogen lack is increased fibrinolysis, which is common in patients with cirrhosis. Factors V, VII, IX and X also may be deficient with cirrhosis.[3] Platelet deficiency also is frequently associated with portal hypertension.

Temporary arrest of bleeding often can be achieved by the intravenous infusion of 20 units of pitressin in 100 ml of 5% dextrose over about ten minutes.[4] Pitressin probably acts by constricting the splanchnic arterioles and, thus, causing a temporary reduction in portal pressure. It is not without danger, however, because it also results in coronary vasoconstriction.[5] Local gastric hypothermia,[6] thoracic duct drainage and esophagoscopic injection of sclerosants[7] have all been used, but they have largely been abandoned because of the poor results.

Inflation and tension on the gastric balloon of the Sengstaken-Blakemore tube will arrest bleeding in about 80% of cases.[8] Inflation of the esophageal balloon is not recommended because of the danger of pressure ulceration and esophageal perforation. Some of the other complications of the Sengstaken-Blakemore tube are aspiration pneumonia (the balloon prevents passage of the saliva into the stomach) and asphyxia (due to the balloon slipping up into the proximal esophagus and blocking the airway). Our policy is to insert a modified Sengstaken-Blakemore tube (without the esophageal balloon). If it controls bleeding, it is left in place for 24 hours and then deflated. If bleeding recurs, the balloon is inflated and emergency surgical therapy is advised.

There is considerable controversy about the best surgical procedure for acutely bleeding esophageal varices. Mere ligation of the varices, either through a transthoracic[9] or a transabdominal[10] approach, gives only a very temporary control of the bleeding. The creation of a portacaval shunt will reduce portal pressure, but the mortality rate of the operation and morbidity, especially due to subsequent hepatic coma and encephalopathy, is very high.

In 1960, Tanner presented the results of a new operation for bleeding esophageal varices, a subcardiac porta-azygos disconnection.[11] This operation, as its name implies, separates the high pressure portal system from the esophageal varices (Fig. 1). It always stops acute bleeding and since it does not have any effect on the amount of blood passing through the liver, it does not predispose to either hepatic coma or to encephalopathy. The hospital mortality in Tanner's series was 20%. The long-term results (ten-year follow-up) with this operation show a higher recurrent bleeding rate (about 40%) than after a good shunt. About half the recurrent hemorrhages are severe and half are minor, resulting from reflux esophagitis which is probably due to operative damage of the ligaments around the cardia. This type of bleeding should be treated by routine alkali therapy and the other usual procedures to prevent reflux.

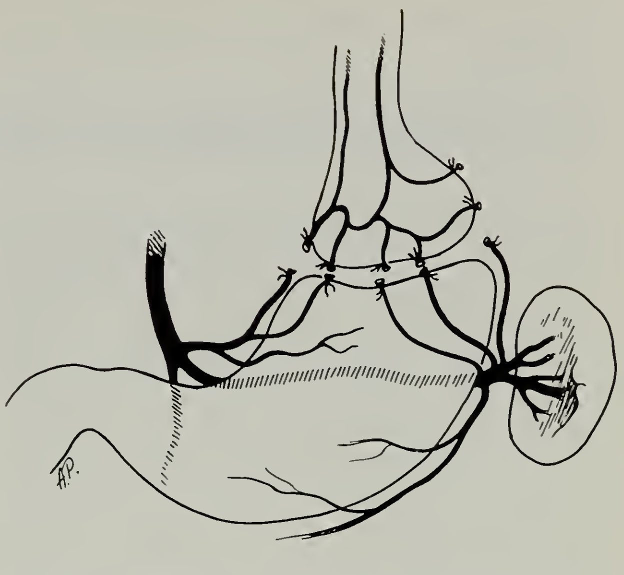

Fig. 1 Diagram of subcardiac porta-azygos disconnection.

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About 300 persons, ages one to 74, from Buchanan County will be invited to receive health and nutrition examinations in a study beginning on June 16 and ending on July 7, 1972 in the St. Joseph metropolitan area. The examining program is part of a nationwide survey of young persons and adults conducted by the Health and Nutrition Examinations Survey of the U. S. Public Health Service.

The Survey will examine a representative sample of the U. S. population during the next two years, visiting 64 locations throughout the country for this purpose. The Survey will be collecting uniform statistical information on selected chronic disease conditions and on the nutritional status of the population aged one to 74 years. Persons to be examined are selected by scientific sampling techniques and invited to participate in the data-collecting process. Examinations are conducted at the Survey's mobile examination center, which will be set up at a central location.

All data and information collected from those individuals participating in the Survey are used for statistical purposes only and are strictly confidential.

JOE PRYOR, M.D., ***Columbia***

Increased Frequency of Venereal Disease

THE FREQUENCY of venereal infection has increased in the United States and in some sections of the country is rapidly approaching epidemic proportion. The incidence was decreasing until 1957 when it began to rise[1, 2] most rapidly in parallel with the mobilization of large numbers of personnel into the Armed Forces.

Gonorrhea in Central Missouri has become an unexpected problem in the last five years, especially since no large metropolitan areas are near. The emergency room of the University of Missouri Medical Center (UMMC) at Columbia treated four times as many patients for venereal disease in 1970 as it did in 1966 (Fig. 1). This represented a two-fold increase in the percent of total number of patients visiting the emergency room in those years.

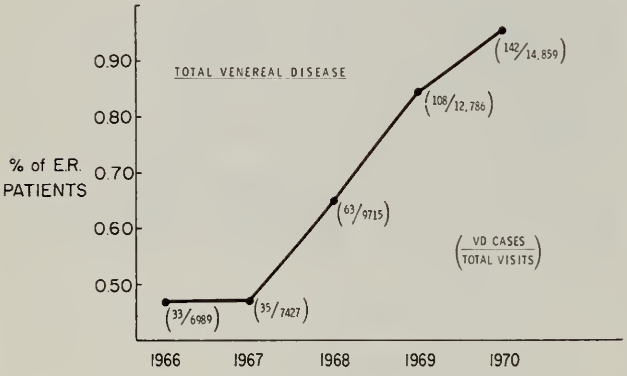

Fig. 1 Nonsyphilitic venereal disease—UMMC, 1966-1970.

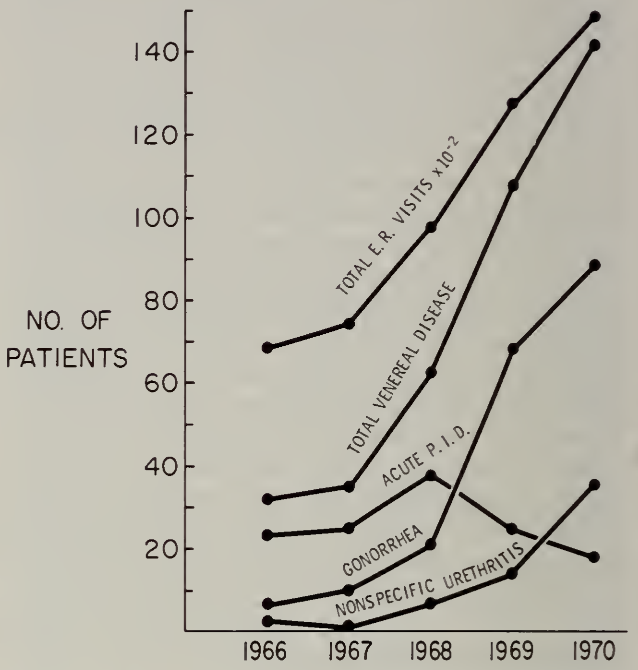

Fig. 2 Nonsyphilitic venereal disease, comparative subgroup incidence.

Nonsyphilitic venereal disease in the UMMC emergency room is recorded under one of three sub-groups: (1) gonorrhea, meaning a urethritis characterized by presence of gram negative intracellular diplococci; (2) acute pelvic inflammatory disease, usually meaning the presence of gram negative intracellular diplococci from cervical smears of women; and (3) nonspecific urethritis in which a pustular drainage is present but organisms are not seen on gram stain. The last usually are partially-treated gonorrhea or treatment failures.

In common with other locations, many more treatment failures are being seen and probably represent resistant strains which seem to be coming from the West Coast and beyond.[3] These data do not include the results of cultures which routinely are taken at the time of examination. Therefore, the total number of cases of venereal disease would be slightly greater because of the incidence of false negative smears, especially in women.

Interestingly, in our emergency room, the incidence of acute pelvic inflammatory disease has decreased in the last three years while gonorrhea and nonspecific urethritis have markedly increased (Fig. 2). Most of the increased incidence of nonsyphilitic venereal disease in Columbia appears to be in the high school and college student age groups. Because of the grow-

(Continued on page 371)

This brief report reveals the rapidly increasing incidence of venereal disease being seen at the University of Missouri Medical Center and which parallels the trend throughout the country. The author suggests that a lack of awareness of the complications of gonorrhea on the part of students and the public should incite a concerted educational effort by physicians. Doctor Pryor is Resident Physician in the Department of Physical Medicine and Rehabilitation, University of Missouri Medical Center.

RICHARD E. CLARK, M.D., *St. Louis*

Experimental and Clinical Cardiothoracic Experience With Tissue Adhesive

A DECADE has passed since the discovery of the adhesiveness of a series of polymers derived from 1,1-disubstituted ethylenes. These adhesives function by an anionic polymerization mechanism, which is catalyzed by traces of water or other weak bases present on the adherent surfaces. The reaction was rapid and exothermic, and it did not require the addition of catalyst, heat or excessive pressure for the development of a strong bond. The bonds appeared to have good low and high temperature properties as well as solvent resistance, but were nonflexible and brittle.

Over the ensuing years, an extensive bibliography concerning the biologic applicability of tissue adhesives based on the 1,1-disubstituted ethylenes has appeared. This has included investigations of an entire series of N-alkyl substituted homologs of the 2-cyanoacrylates. All types of tissues have been utilized, and experience in man has slowly accumulated. The adhesive has been used in various forms for both its adherent and hemostatic properties, the latter being of particular interest in military medicine especially during the present conflict. The use of these adhesives over the past ten years, both experimentally and clinically, constitutes the substance of this report.

EXPERIMENTAL EXPERIENCE

Persistent air leak with the formation of a broncho-pleural fistula and subsequent empyema continues to be an occasional complication of pulmonary resection which produces morbidity and occasional mortality. Any improvement in the sealing of raw parenchymal surfaces, large bronchi and small vessels might obviate these clinical complications of pulmonary resection. This experimental study utilized methyl-2-cyanoacrylate (Eastman 910 monomer, supplied by Ethicon, Somerville, N. J.) to seal raw canine parenchymal surfaces.

Mongrel dogs, 4.6 kg to 22 kg in weight, were anesthetized with intravenous sodium pentobarbital (26.4 mg/kg) and an endotracheal tube was inserted. Ventilation was controlled by a mechanical respirator using room air. The 40 dogs were divided into three groups. All animals had preoperative chest X-rays and were given 600,000 units of procaine penicillin and 0.5 gm of streptomycin intramuscularly the night before operation. Each animal had a right thoracotomy through the fourth intercostal space. A long siliconized intestinal clamp was applied horizontally across the lower one third of the right upper lobe and a horizontal transection was performed without regard to anatomic planes. A minimal quantity of polymer was dripped over the raw surface area and spread as uniformly as possible with a siliconized ball-tipped rod. Two minutes were permitted to elapse, after which the area was washed with copious quantities of normal saline. The anterior mediastinum was opened to cause bilateral pneumothorax and death if an air leak occurred.

Following the appropriate procedure, the chest wall was closed without postoperative drainage and antibiotics were administered daily for five days postoperatively. No sutures or cautery were used on the lung parenchyma in any group at anytime. The method of raw surface closure was different in each of the three groups and was ascertained by the randomized block method. The animals were studied with serial chest films at periods of one day, one week, six weeks and prior to sacrifice. The dogs were killed from one

The chemistry, tissue reactivity, toxicity and the use of methyl 2-cyanoacrylate and isobutyl 2-cyanoacrylate monomers as adhesives are discussed in this article. The author cites experimental and clinical experiences and offers recommendations for the use of the monomers. Doctor Clark is from the Division of Cardiothoracic Surgery, Washington University School of Medicine.

to 12 months following operation. The pleural cavity was carefully reexplored through the old operative site and photographs were taken. Each specimen was tested in vivo with 80 cm-100 cm water pressure through the endotracheal tube and the lobe submerged in normal saline. The remnant of the right upper lobe was removed for microscopic study.

Group A

Ten dogs had the horizontal transection of the right upper lobe coated once with monomer only (Fig. 1).

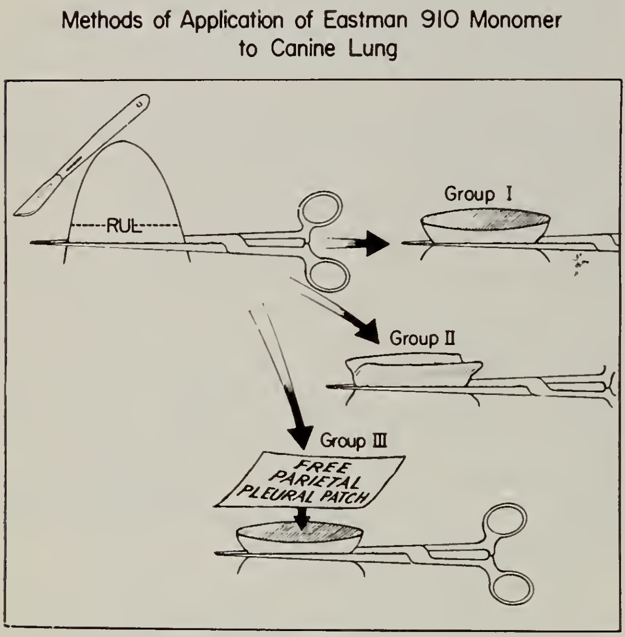
Methods of Application of Eastman 910 Monomer to Canine Lung
RUL
Group I
Group II
Group III
FREE PARIETAL PLEURAL PATCH

Fig. 1 Methods of application of Eastman 910 monomer to canine surgery.

Group B

Fifteen dogs had a horizontal transection in a beveled manner to form a trough. The raw opposing surfaces were each coated and then approximated (Fig. 1).

Group C

Fifteen dogs had a horizontal transection of the upper lobe to which one application of a polymer was applied, followed by a second application and the overlay of a free pleural patch to the raw surface (Fig. 1).

Results

Survival (Table 1)

Group A. Four of the ten dogs in this group died of air leak and consequent bilateral pneumothoraces six, eight and nine days, respectively, after operation. Death consistently occurred within a day or two after the dog's forelegs were hyperextended on the table for an anterior-posterior chest X-ray. Only one of the animals which succumbed because of air leak had a pneumothorax at the time of the X-ray. Two long-term animals in this group were lost because of pneumonia and a fight. Thus, four animals were available for complete study.

TABLE 1

SURVIVAL RESULTS AFTER APPLICATION OF METHYL 2-CYANOACRYLATE MONOMER TO RAW PULMONARY SURFACES

	No. of Dogs	*No. of Deaths Due to Air Leak*	*Percent Survivors*
Group A	10	4	60
Group B	15	4	73
Croup C	15	4	73

Group B. These 15 animals had beveled transections. Four animals (27%) succumbed because of air leak, dying five, five, 11 and 12 days, respectively, postoperatively.

Group C. These 15 animals had the raw surface glued and a parietal pleural patch applied. Four animals succumbed (27%) because of air leak, dying eight, nine, ten and 11 days postoperatively.

No hemothorax or empyema occurred in any of the animals sacrificed, nor was any air leak demonstrated at sacrifice when 80 cm-100 cm water pressure was applied through the endotracheal tube and the right upper lobe was submerged. Complete sealing at the site of transection with adhesions was usually found. The area of the seal usually was smooth and covered with a glistening membrane and all lobes were fully expanded. There was no evidence of a pyogenic inflammatory response nor frank tissue necrosis.

Histology

Twenty-two specimens from animals surviving from one to 12 months were available for histologic study and grouped according to Table 2. The initial response is that of an acute inflammatory, subpleural reaction with the rapid ap-

TABLE 2

SACRIFICE SCHEDULE

Interval In Months	*No. Group A*	*No. Group B*	*No. Group C*
1		1	1
2		2	1
3			1
4		1	
6	2	3	3
9		1	1
12	1	2	2

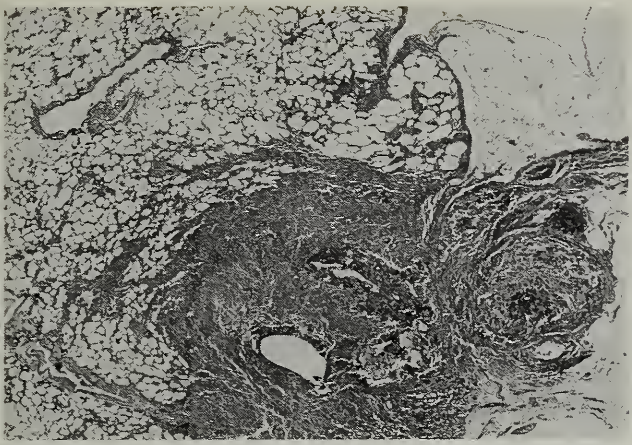

Fig. 2 Typical inflammatory response seen at one month after monomer application to raw lung surface (35x).

pearance of white blood cells predominated by the polymophonuclear leukocytes. Later, round cells appear to predominate as the reaction becomes less and proceeds toward the surface. Eventually, the cut surface is covered with a fibrous scar tissue with a very small residual of polymorphonuclear cells. Evidence of the polymer was rarely found with polarized and phase contrast lighting after one year. There was evidence of minimal debris within cells and in the inflammatory response at six and nine months (Figs. 2 and 3).

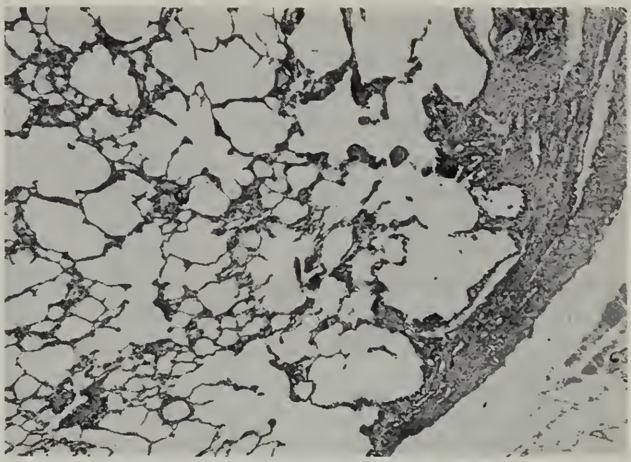

Fig. 3 Thickened pleural surface with minimal reaction one year after application of monomer to raw lung surface (90x).

Radiology

Typical serial films are demonstrated in Fig. 4 and show relative lack of an elevated right hemidiaphragm. Although some pleural reaction was seen at the one-month interval, this appeared to clear by six and 12 months.

Clinical Experience

In the past eight years, ten patients have been treated with the monomer, five having been treated with the methyl 2-cyanoacrylate mono-

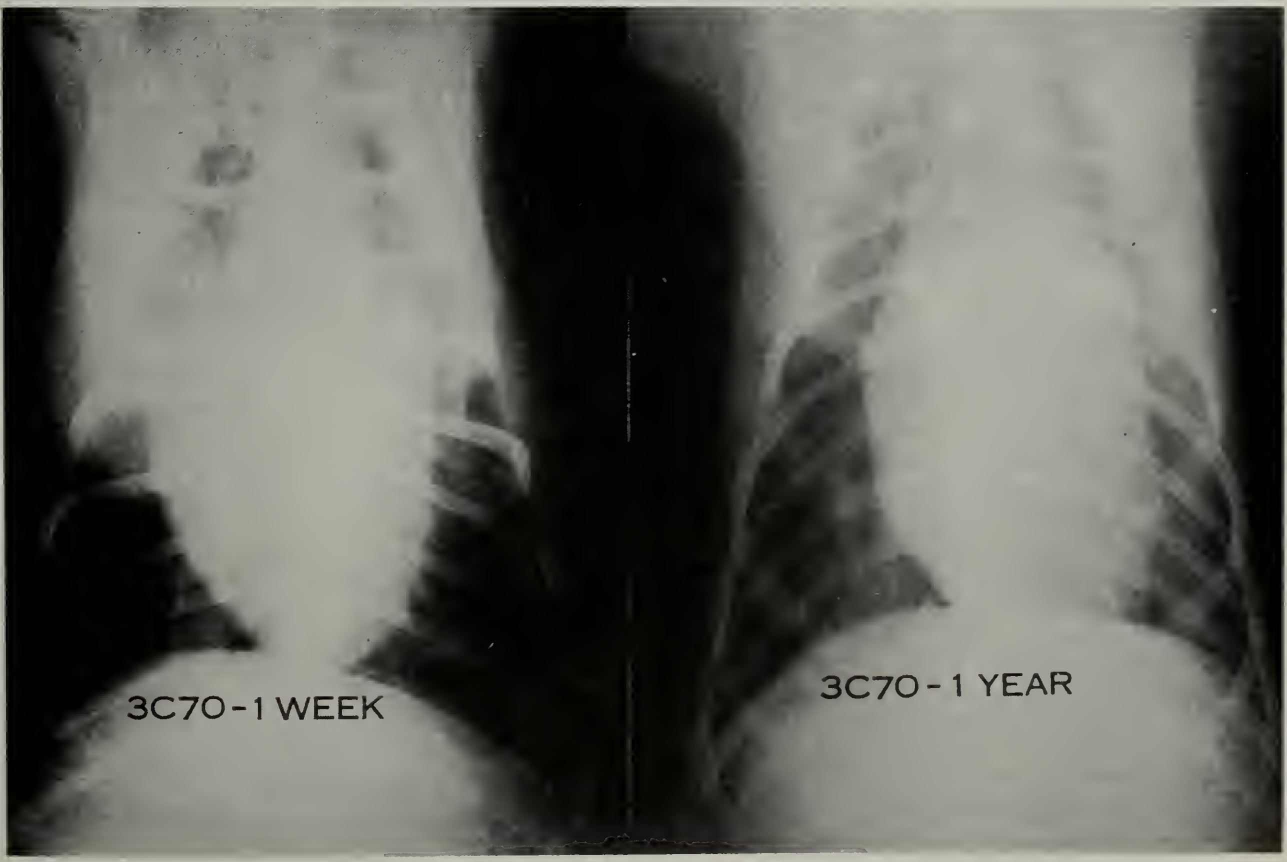

Fig. 4 Chest films of dog one week and one year after application of monomer to raw lung surface.

mer and five with the isobutyl 2-cyanoacrylate monomer. In all but two of the patients, the indication was uncontrollable oozing or frank hemorrhage from suture lines involving the great vessels. In one, a tenuous esophageal suture line was reinforced with monomer and a parietal pleural patch was applied. In a second patient, a transected thoracic duct was closed in the presence of a marked pseudomonas infection. The details of the patients are given in Table 3. Here follows a very brief summary of the ten patients on which the tissue adhesive was used.

Patient # 1. A 32-year-old white man developed subacute bacterial endocarditis and progressive severe aortic insufficiency, complicated by profound congestive heart failure, liver failure and renal failure. Following aortic valve replacement and after cessation of perfusion, the administration of protamine sulphate and multiple blood fractions, no clotting was evident after two hours. All coagulation studies were grossly abnormal. There was continued hemorrhage from the suture holes in the aortotomy at the rate of approximately 500 cc to 1,000 cc per hour. Monomer (methyl 2-cyanoacrylate) was applied to the suture line and a marked decrease in the oozing was noted. The patient survived.

Patient # 2. A 12-year-old boy with congenital aortic stenosis, who had previously had aortic valvulotomy, valvuloplasty and valve replacement, underwent ball valve replacement. Widening of the aortic root at the noncoronary cusp of a Teflon gusset was required to accommodate the cage. Bleeding from the prosthetic patch-aortic suture line following cessation of perfusion occurred because of poor coagulation. Monomer (methyl 2-cyanoacrylate) was applied and a marked decrease in the oozing was noted. The patient did not survive because of low cardiac output and arrythmia.

Patient # 3. A 56-year-old white man underwent aortic valve replacement for calcific aortic stenosis. A Magovern prothesis was inserted. Following release of the aortic clamp after aortotomy closure, a massive hemorrhage occurred at the posterior base of the aortic root. Perfusion was reinitiated and the area closed with sutures buttressed with Teflon pledgets.

TABLE 3

No.	*Patient*	*Diagnosis*	*Operation*	*Problem*	*Adhesive**	*Result*
1 . . .	32 WM	Aortic insufficiency	Aortic valve replacement	Bleeding aortotomy and coagulopathy	M	Marked decrease in bleeding
2 . . .	12 WM	Aortic insufficiency	Aortic valve replacement	Bleeding aortotomy and coagulopathy	M	Marked decrease in bleeding
3 . . .	56 WM	Aortic stenosis	Aortic valve replacement	Tear at base of aortic root-bleeding after suture closed	I	Marked decrease in bleeding
4 . . .	28 WM	Marfan's syndrome, AI and ascd. aortic aneurysm	AVR, graft replacement of ascd. aorta	Graft suture line bleeding	M	Marked decrease in bleeding
5 . . .	21 WM	Marfan's syndrome, AI and ruptured aortic aneurysm	AVR, graft replacement of ascd. aorta	Graft suture line bleeding	I	Little decrease in bleeding
6 . . .	15 WM	Tetralogy of Fallot	Total correction with allograft replacement of RV outflow tract and PA	Suture line bleeding severe coagulopathy	I	Little decrease in bleeding
7 . . .	21 WM	Traumatic aneurysm descd. thor. aorta	Graft replacement descending thor. aorta aneurysm	Proximal tear of aorta bleeding post suture	M	Marked decrease in bleeding
8 . . .	62 NM	Lye burn esophagus, esophageal perforation	Suture. Closure mid esophagus tear	Marked tissue friability	M	No leak demonstrated at surgery
9 . . .	47 WM	Carcinoma larynx	Laryngectomy and left radical neck	Thoracic duct fistula	M	Complete closure
10 . . .	49 WF	Severe coronary arterial insufficiency	Saphenous vein bypass graft	Bleeding from vein-coronary artery anastomosis	I	Little decrease in bleeding

* M = Methyl 2-Cyanoacrylate Monomer.

* I = Isobutyl 2-Cyanoacrylate Monomer.

Marked oozing continued. Isobutyl 2-cyanoacrylate monomer was applied and the oozing controlled. The patient required reexploration 12 hours after the initial procedure, at which time more monomer was applied and hemostasis was obtained. The patient survived one week, at the end of which time he had a sudden arrythmia and cardiac arrest. He died four days later of neurologic causes.

Patient # 4. A 28-year-old white man with Marfan's Syndrome underwent aortic valve replacement and resection of an ascending aortic aneurysm with Teflon graft replacement. Prior to cessation of perfusion, each of the suture lines of the graft was coated with methyl 2-cyanoacrylate monomer. Bleeding was minimal from the suture lines. The patient survived.

Patient # 5. A 21-year-old white man with Marfan's Syndrome and rupture of an ascending aortic aneurysm underwent aortic valve replacement and resection of the aneurysm with graft replacement. Postoperatively, bleeding was a problem and the suture lines were coated with isobutyl 2-cyanoacrylate monomer. A moderate decrease in oozing occurred. The patient died approximately three weeks following the procedure from pneumonia and renal failure.

Patient # 6. A 15-year-old white girl with severe tetralogy of Fallot, type IV, underwent total correction with utilization of an aortic allograft to reconstruct the right ventricular outflow tract and the main pulmonary artery. A marked coagulation defect was evident following perfusion and severe oozing occurred at all graft suture lines. These were coated with isobutyl monomer with a mild decrease in the ooze. Reexploration was required three times for continued bleeding. The patient survived.

Patient # 7. A 21-year-old white man sustained a traumatic injury to the proximal descending thoracic aorta with the formation of an aneurysm. Following resection and graft replacement, a tear occurred on the posterior-inferior margin of the aortic arch. This was controlled with buttressed mattress sutures, but oozing was significant. After the methyl monomer was applied, there was a marked decrease in hemorrhage. The patient died one week later because of rupture of the suture line in the arch of the aorta.

Patient # 8. A 62-year-old Negro man had sustained a lye burn to the esophagus many years before and had been treated with dilatation. During one such procedure, the esophagus was perforated. Approximately six hours later, at the time of the thoracotomy, the esophageal tear in the mid-third was located, and the tissue was markedly friable and edematous. A single suture line of interrupted Tevdek sutures was utilized, methyl monomer was applied and a parietal pleural patch was placed over this. The patient survived.

Patient # 9. A 47-year-old white man underwent laryngectomy and a left radical neck dissection for epidermoid carcinoma. He was readmitted four weeks after being discharged because of massive and progressive swelling of the left neck. This was drained and found to be chylous. The patient drained approximately 1,700 cc to 2,500 cc of chylous material per day and had progressive weight loss. A fistulous tract was opened widely and found to be heavily contaminated with pseudomonas aeruginosa. The left common carotid artery was exposed and was immediately adjacent to the thoracic duct fistula. Monomer (methyl 2-cyanoacrylate) was applied to the thoracic duct on two occasions at 12 hours apart with complete cessation of thoracic drainage and prompt clearing of the wound. There were no late sequelae six months after thoracic duct closure.

Patient # 10. A 49-year-old white woman with ischemic heart disease and complete obstruction of the circumflex branch of the left coronary artery had a cephalic vein bypass graft from the ascending thoracic aorta to the circumflex branch of the left coronary artery. Following cessation of cardiopulmonary bypass, marked oozing was noted from all suture lines. Repeated suturing was used without success. Isobutyl monomer was used on the suture lines with a minimal decrease in the ooze. The patient later died of post-transfusion purpura, a diagnosis confirmed by the presence of a potent complement fixing anti-platelet antibody (PL^{A1}).

COMMENT

The ideal method for approximating tissue and providing a watertight seal simultaneously in a simple, little-time consuming, nondestructive and noninflammatory manner has not been reached. An increasing number of polymerizing compounds are being investigated as a possible solution to the problem. The criteria for the ideal tissue adhesive have been listed, as follows:

1. Biodegradeable
2. Noncarcinogenic
3. Minimal tissue toxicity and wound-healing inhibition
4. Bond strength equal to the tensile strength of adjacent tissue
5. Flexible bonding
6. Bond strength maintained until wound healing has been accomplished

7. Not excessive exothermic polymerization process
8. Short polymerization time
9. Polymerization catalyzed by water
10. Ease of application
11. Stable and sterilizable
12. Penetrable bond for cellular ingrowth

Most adhesives function by the application of heat, pressure, addition of catalyst or evaporation of a solvent. The alkyl 2-cyanoacrylates are converted from the liquid to solid state by polymerization when applied as a thin film between two surfaces. This reaction occurs at room temperature, does not require the use of a solvent or added catalyst and is the result of an anionic polymerization. The process, which is highly exothermic, is catalyzed by minute amounts of water or weak bases present on surfaces. The polymerization of this group of compounds occurs without appreciable change in volume and, thus, has little use as a space filler. Methyl 2-cyanoacrylate has had wide use as an industrial adhesive, which is modified by the addition of a sebcate plastacizer, a methylacrylate thickener and a sulphur dioxide inhibitor. The initial medical investigation indicated the potential carcinogenic hazard of methacrylate additives and, consequently, the remainder of the investigations of the monomer were without additives. The initial material polymerized rapidly and had extremely low viscosity, such that it was difficult to keep the monomer in the area desired. Also, it was distributed in a multiple use vial with a poor shelf life. Improvements in the past ten years have yielded a sterile material which is dispensed in 1 ml tubes. A method of sterilizing the monomer without causing polymerization has been found.

The histologic response to the application of a specific monomer is an acute inflammatory reaction, the severity of which is proportional to the amount of adhesive on and in the tissue, and the type of tissue. Surface cellular necrosis is primarily a result of monomer toxicity and, possibly, the heat of polymerization. The rate of resolution is similarly related. Incorporation of 14C into the monomer has demonstrated that the degradation products are eliminated both in the urine and stool and that one product of degradation is formaldehyde.[1] Comparative studies of the N-alkyl cyanoacrylate polymers has suggested that of the group, methyl 2-cyanoacrylate has rather marked histotoxicity because of continuing interaction and, perhaps, because of its degradation products.[2] Homologs with a higher molecular weight have demonstrated less of a histotoxic response. For this reason, the isobutyl homolog is presently being supplied.

Multiple studies involving nearly every tissue have appeared. In 1963, Sawyers and Vasco reported the sealing of cut lung surfaces of dogs with a follow up of six months.[3] All animals survived segmental resections, wedge resections and abraded lung. The monomer has been utilized for bronchial closure following pneumonectomy alone or as an adjunct to suture closure.[4] Wilder *et al* demonstrated satisfactory bronchial and raw pulmonary parenchymal surface coaptation with the methyl 2-cyanoacrylate monomer.[5] Braunwald's experiences in 24 patients, when the material was used on the aorta (18), heart (4) and raw mediastinal surfaces (2), was encouraging.[6] Esophageal suture lines reinforced with methyl 2-cyanoacrylate also were satisfactory when compared to suture alone.[7]

The experimental data in this study demonstrated that application of methyl 2-cyanoacrylate monomer can completely seal a horizontally transected right upper lobe of a dog and permit survival. It is to be noted, however, that although this test was extremely severe because the line of transection in no way followed anatomical planes and the medial edge was extremely close to the hilum where large sized bronchi and blood vessels exist, a 40% failure rate occurred. Somewhat better results were obtained when the raw surfaces were coapted with another tissue, either lung parenchyma itself, by folding in, or by the application of a free pleural graft. The absence of polymer at one year, the smooth appearance of the healed site of resection and the relative little loss of lung volume imposed by this method of closure make it an attractive adjunct to present methods.

The clinical use of this material was restricted to use as a sealant of suture holes in those situations in which formation of normal blood clots was insufficient to control the bleeding after the cessation of cardiopulmonary bypass. In the case of the esophageal perforation, the pericardial fat pad was extremely small and would not reach the area. Consequently, an alternative method of patch closure was chosen. In the patient with the thoracic duct fistula, the fear of mechanical manipulation in a heavily infected proteinaceous area next to the common carotid artery negated extensive mechanical manipulation.

No manifestations of systemic toxicity were observed in any patient on whom monomer of either type was used. All patients had frequent complete blood counts and liver profile chemistries performed in the postoperative period. Complete autopsies were performed on the four patients who died at postoperative intervals of one hour (Patient # 2) one week (Patients # 3 and # 7) and three weeks (Patient # 5). White, brittle, polymerized adhesive was presented at the site of application. Cutting through the material and adhered tissue gave a distinctive crunching feel and sound. Histologic sections through the areas of adherence show a similar response as that seen experimentally in this study and that reported by Braunwald *et al.*

The use of this material must still be reserved to those situations in which standard and accepted means will not suffice. The tissue adhesives employed are exothermic, are mildly to moderately histotoxic and cause an acute inflammatory reaction which is dependent on the amount of material used and the site of application. The resultant bond is hard and brittle and can be troublesome if the instruments are not siliconized. However, the monomers have been useful as an adjunct for closure to a suture line in a high pressure vascular area and as an adjunct of coaptation of autologous tissues to cover a suture line or raw pulmonary parenchyma.

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Division of Cardiothoracic Surgery
Washington University
4960 Audubon Ave.
St. Louis, Mo. 63110

Venereal Disease

(Continued from page 364)

ing number of cases, the City Health Department has engaged an additional employee to investigate named contacts.

Especially disconcerting is the public's ignorance of the seriousness of later complications of gonorrhea, including strictures, infertility and joint destruction. Immediate complications of gonorrhea are not uncommon and can be manifested as arthritis, pelvic inflammatory disease, epididymitis, proctitis, septicemia and therapy relapse.[3] The increasing involvement of the younger age groups[2] and the emergence of resistant strains of gonorrhea are compelling indications for controlling the rising incidence of nonsyphilitic venereal disease. A concerted educational effort should be undertaken by physicians and other informed members of the health profession for the benefit of the public if this ubiquitous disease and its complications are to be averted.

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The American Association of Blood Banks (AABB), which represents a majority of the nation's nonprofit community blood banks and more than 1,464 hospital blood banks, is recommending that all of its member blood banks not now obtaining 100% voluntary blood donations "move as rapidly as possible" toward this goal and achieve it no later than the end of 1975.

In the meantime, on the basis of a recent national survey, the AABB reaffirms the need for blood nonreplacement fees and for group and individual credit as incentive for donating blood.

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President's Message

The question that probably is asked most frequently of your State Association officers is this—"Why doesn't the AMA do something?" Occasionally, it is phrased, "Why doesn't the AMA do this or that about such and such?"

Predominantly, this query emanates from a member who has not attended an AMA convention or a county society or state association meeting for some time. On such occasions, the questioner is advised of the available ways in which he can express his opinions and ideas for consideration, such as through the delegates to the state association and to the AMA or by personally submitting a resolution at the county medical society or state levels. Invariably, the reply is, "I don't know anything about that" or "I'm too busy."

Walter T. Gunn, M.D.

To these quasi-activists, a golden opportunity now unfolds itself. At the time of this writing, the AMA is mailing a member opinion survey to discover membership attitudes on critical basic issues. If you have not done so, please reply to this questionnaire immediately. It will not only aid the AMA in its national legislative attitude, but it will help establish a cross section of opinion.

Although AMA membership decreased by 4% in 1971, 83% of state medical association members eligible for "active-regular" AMA membership were members of the AMA.

Along with the membership survey, the AMA Board of Trustees has launched a membership recruitment drive. It is an expanded program for interns and residents who may now join for an annual dues of $20 and may be members directly if no such mechanism for their membership exists at the state or county levels. Since March 1, this program has been headed by Mr. Tim Norbeck, our former liaison man with the AMA. Additionally, a special section for medical students is being created at the AMA conventions so that all voices of Medicine can be heard.

Lastly, at both the San Francisco and Cincinnati meetings, open hearings are to be held at which any member may discuss his ideas, opinions or suggestions for action or improvement in the AMA. The voice of the grass roots is being avidly sought and anyone with a plan or program for enhancement of the AMA will be welcomed and heard. Also, a movement is underway to separate the U. S. Department of Health from Education and Welfare inasmuch as there is a tendency to transfer authority and decisions from one segment to the other regardless of the education or training of the official involved.

May 1957

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Woman's Auxiliary

"COME FLY WITH ME!"

After reviewing the list of Woman's Auxiliary activities planned for the coming year, I have decided that my first personal goal should be the completion of my flying lessons and the acquisition of my private pilot's license. I am sure I will literally have to fly to reach every area and activity necessary for a successful and fulfilling year.

Our most vital need and demanding goal this year is to increase our Auxiliary membership to correspond more closely to the membership of the MSMA. This will require the combined efforts of every present Auxiliary member and, hopefully, the personal interest of the MSMA members in encouraging their wives to join us. There are so many ways in which we can be of service to the Association and our communities. By increasing our membership to include every doctor's wife, we will be enlisting more womanpower to carry out our projects. By working together in a cooperative effort, we can accomplish our goals.

Equally important is our desire to continue to improve and increase our communications between the Auxiliary and the MSMA. We hope to achieve this by working closely with the Council and by being better informed in order to be of greater service as an Auxiliary.

Mrs. Keith D. Jones
President

My theme for the year, "The World, The Auxiliary and You," encompasses the many Auxiliary activities from International Health down to the individual Missouri communities, which must be surveyed to determine how we can become involved most effectively in local health problems and assist as a catalyst for various agencies. Other important activities will involve the fields of Legislation, Public Affairs, MMPAC, Health Manpower, AMA-ERF and the Missouri State Medical Foundation.

We thank the MSMA for the valuable help in making our *Legislative Day* in Jefferson City on April 12 a reality. It's amazing how many Missourians have not seen their own State Capitol or observed their state government in action. It's surprising how much one can learn during a visit of this type. It was both fun and informative, and we hope to make it an annual event.

Our state convention in Kansas City was outstanding and, again, I thank each member who helped to make it a successful meeting.

Of course, we are all indebted to our retiring Auxillary President, *Mrs. Frank (Annabelle) Valach*, for the warmth she provided on her many county auxiliary visits. I am grateful to her for her interest and encouragement in planning our new programs for the coming year. With her help, I have found my "President's wings!"

EDITORIAL

CLEAR LIGHT ON THE PROBLEM OF DRUG ABUSE

A distinguished group of psychiatrists known as the Group for the Advancement of Psychiatry has made an in-depth study of drug abuse and reported its findings in a concise paperback edition known as Report Number 80. This should be required reading for anyone who in his daily activity touches on this problem.

The committee has asked itself the proper questions: why is our society in turmoil as some of its brightest minds decay and crime rates soar? Should the misuser of drugs be treated as an ill person or a criminal? What is the role of the physician, the legislator, the law-enforcement officer, the educator, the mass media and the researcher in coping with the misuse of drugs and its far reaching ramifications?

One well deserved criticism is leveled at the prescribing physician, namely, that he should reexamine his use of mood and behavior altering drugs and that medical societies and hospital staffs should exercise some surveillance over the extensive use of such drugs. The committee calls for the adoption of voluntary codes of conduct by industries and professions concerned.

A conjoined effort by the medical profession, the pharmaceutical industry and the communications media needs to be mounted against illegal traffic in drugs as a supplement to legal controls.

Government must make sure that treatment is available for all. The City of New York has made commendable strides in this direction.

Report Number Eighty can be obtained for $1.00 from the Publications Office, Group for the Advancement of Psychiatry, 419 Park Avenue, New York, N. Y. 10016.

We strongly urge you get one.

New York State Journal of Medicine

COMMENT . . .

Our Readers Write

Tissue Bank Services Available

To The Editor:

In 1966, a Tissue Bank was established at The St. Louis Zoological Park. Its purpose was to make available to bio-medical researchers and educators tissues from exotic fauna that have died in the collection at The St. Louis Zoo.

It is felt that the Tissue Bank is a valuable contribution to the scientific community as well as a service to the conservation of wildlife. The Tissue Bank enables researchers to obtain tissues from exotic fauna that otherwise would not have been available to them. It conserves the rare and endangered wildlife that would have been sacrificed had these tissues not been provided. The Tissue Bank has grown and expanded during the past five years. We now have more than 1,500 specimens representing almost every order of Mammals, Birds, Reptiles and Amphibians.

The Tissue Bank has been reorganized in the past year and a new catalog has been published listing the specimens now available. If your members wish us to collect tissues or specimens other than those listed in the catalog, please let us know and we will endeavor to accommodate your needs. If you wish a copy of this updated catalog, please let us know.

Sincerely,
William J. Boever, D.V.M.
c/o Tissue Bank
Forest Park
St. Louis, Mo. 63110
(AC314) 781-0900-Sta. 77

Director of Environmental Consultants

To The Editor:

An Annual Directory of Environmental Consultants will be published beginning in 1972. Environmentally-concerned professionals interested in having their names and short resumes appear in the Directory should send a No. 10, self-addressed, stamped envelope to Directory of Environmental Consultants, P.O. Box 8002, University Station, St. Louis, Mo. 73108.

Thank you,
William Cate
Environmental Communication Workshop
School of Law, St. Louis University

Book on Religion in Healing

To The Editor:

I am editing a book on the role of faith or religion in healing from a physician's standpoint. If any physician is interested in contributing to this book, please write to the following address:

Claude A. Frazier, M.D.
4-C Doctors Park
Asheville, N. C. 28801

TIPS FOR THE IDENTIFICATION OF DRUG ABUSERS

The following chart was adapted by the Suffolk County Medical Society from one prepared by the Suffolk County District Attorney's Office

Drugs Used	Physical Symptoms	Look For	Dangers
Glue Sniffing	Violence, Drunk Appearance, Dreamy or blank expression	Tubes of glue, Glue smears, Large Paper Bags, or Handkerchiefs	Lung/Brain/Liver Damage, Death through suffocation or choking, Anemia
Heroin, Morphine, Codeine	Stupor, Drowsiness, Needle marks on body, Watery eyes, Loss of appetite, Blood stain on shirt sleeve, Running nose	Needle or hypodermic syringe, Cotton, Tourniquet-string, Rope, Belt, Burnt bottle Caps or Spoons, Glassine envelopes	Death from overdose, Addiction, Liver and other infections due to unsterile needles
Cough Medicine containing Codeine and Opium	Drunk appearance, Lack of coordination, Confusion, Excessive Itching	Empty bottle of cough medicine	Addiction
Marijuana ("Pot," "Grass")	Sleepiness, Wandering mind, Enlarged pupils, Lack of co-ordination, Craving for sweets, Increased appetite	Strong odor of burnt leaves, Small seeds in pocket lining, Cigarette paper, Discolored fingers	Inducement to take stronger narcotics. Psychological dependence. Possible physical damage?
Hallucinogens: (LSD, DMT)	Severe Hallucinations, Feelings of detachment, Incoherent speech, Cold hands & feet, Vomiting, Laughing & crying	Cube sugar with discoloration in center, Strong body odor, Small tube of liquid	Suicidal tendencies, Unpredictable behavior, Chronic exposure causes brain damage
Stimulants: Amphetamines ("Pep Pills," "Ups")	Aggressive behavior, Giggling, Silliness, Rapid Speech, Confused thinking, No appetite, Extreme fatigue, Dry Mouth, Shakiness, Insomnia	Pills or capsules of varying colors, Chain smoking	Death from overdose, Hallucinations, Psychosis
Sedatives Barbiturates ("Goof Balls," "Downs")	Drowsiness, Stupor, Dullness, Slurred speech, Drunk appearance, Vomiting	Pills or capsules of varying colors	Death or unconsciousness from overdose, Addiction, Convulsions in withdrawal

County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

BUCHANAN COUNTY MEDICAL SOCIETY

The monthly meeting of the Buchanan County Medical Society was held on March 1 at Ramada Inn in St. Joseph.

The program theme was "Right to Life" and presented Father Thomas M. Reardon, a Catholic Priest, and Dr. Frank Ammatelli, a physician. Both are from Kansas City and are active in the Right to Life and Birthright programs. A spirited discussion and question-and-answer period followed their presentation.

Guests at the meeting were members of the Central High School Biology Club and their sponsor-teachers. The students also participated in the question-answer session.

Dr. Lawrence H. Pifer presided at the meeting, and Dr. Paul A. Knepper introduced the speakers.

WILLIAM B. O'CONNOR, M.D., *Secretary*

GRAND RIVER MEDICAL SOCIETY

Thirty members of the Grand River Medical Society, the Woman's Auxiliary and guests met at the Strand Hotel in Chillicothe on March 9 for a social hour followed by a dinner.

In honor of Doctors' Day, Mrs. Ralph Bohnsack and her "Sing-A-Ling" musical group presented a half hour program of enjoyable entertainment.

Revis C. Lewis, M.D., a neurosurgeon in practice in Kansas City, spoke on "New Frontiers in Neuroradiology." His presentation proved to be another in a series of excellent programs offered by this year's Program Chairman.

The business meeting was brief and included a discussion of the Annual Session of the Missouri State Medical Society and of the Missouri Health Care Foundation meeting in Kansas City in April.

FRANK R. DALEY, M.D., *Secretary*

SECOND DISTRICT

COUNCILOR
LYSLE M. BACH, M.D., HANNIBAL

CHARITON-MACON-MONROE-RANDOLPH COUNTY MEDICAL SOCIETY

A Columbia physician was the featured speaker at the regular meeting of the Chariton-Macon-Monroe-Randolph County Medical Society on March 9 in the Woodland Hospital Medical Library in Moberly.

The president, Dr. T. L. Harms, presided. Dr. C. C. Cohrs arranged the program which was presented by James N. Hueser, M.D., who is in the private practice of internal medicine in Columbia.

Doctor Hueser's subject was "Newer Drugs Used in Cancer Chemotherapy." Slides were used to illustrate cases. Doctor Hueser pointed out that few actual cures are accomplished, but often chemotherapy can help prolong life and make living more worthwhile. He injected a note of hope for the victims of malignant diseases and for the physicians who care for them.

Following his formal discussion, Doctor Hueser answered questions from the floor.

Members present were Drs. D. E. Eggleston and J. E. Campbell, Macon County; F. L. Harms, Chariton County; F. A. Barnett, Monroe County; J. W. Fleming, Jr., T. S. Fleming, R. H. Young, W. D. Chute, L. E. Huber, P. V. Dreyer, R. V. Thompson and J. R. Hudson, Randolph County.

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New Members

Lourdes A. Baigos, M.D., 1515 Lafayette Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Baigos is a native of Roxas City, Philippines, received his preliminary education at the University of San Agustin and his M.D. degree at the University of Santo Tomas in 1963. He specializes in pediatrics.

Lewis N. Bass, M.D., 2310 Linwood Blvd., Kansas City, has become a member of Jackson County Medical Society. Dr. Bass is a native of Pittsburg, Kan., received his preliminary education at Kansas State Teacher's College and his M.D. degree at the University of Kansas in 1945. He specializes in pediatrics.

John E. Brooks, M.D., Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Brooks is a native of Rossenvale, Lancashire, England, received his preliminary education at Rawtenstall School and his M.D. degree at Victoria University in 1958. He specializes in neurology.

Donald C. Burr, M.D., 141 N. Meramec, St. Louis, has become a member of St. Louis Medical Society. Dr. Burr is a native of Oklahoma City, Okla., received his preliminary education at Oklahoma University and his M.D. degree at the University of Oklahoma in 1962. He specializes in radiology.

Robert R. Cole, M.D., 100 N. Euclid, St. Louis, has become a member of St. Louis Medical Society. Dr. Cole is a native of Alicia, Ark., received his premilinary education at the University of Arkansas and his M.D. degree at the University of Arkansas in 1961. He specializes in pathology.

Isabella S. Collins, M.D., Barnes Hospital, St. Louis, has become a member of St. Louis Medical Society. Dr. Collins is a native of Aurora, Neb., received her preliminary education at Vassar College and her M.D. degree at Johns Hopkins Medical School in 1950. She specializes in anesthesiology.

John B. Crane, M.D., 1211 S. Glenstone, Springfield, has become a member of Greene County Medical Society. Dr. Crane is a native of Peoria, Ill., received his preliminary education at Bradley University and his M.D. degree at Washington University in 1964. He specializes in psychiatry.

Gerald L. Fivian, M.D., 1035 Bellevue, St. Louis, has become a member of St. Louis Medical Society. Dr. Fivian is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1964. He specializes in ophthalmology.

Sisenande P. Galvez, Jr., M.D., 1500 N. Kansas, Marceline, has become a member of Grand River Medical Society. Dr. Galvez is a native of the Philippines, received his preliminary education at the University of the Philippines and his M.D. degree at Manila Central University in 1962. He specializes in internal medicine.

Francisco Garcia, M.D., 2601 N. Whittier, St. St. Louis, has become a member of St. Louis Medical Society. Dr. Garcia is a native of El Salvador, Central America, received his preliminary education at Externado San Jose and his M.D. degree at National University of El Salvador in 1964. He specializes in ophthalmology.

Ilse Heilbrunn, M.D., 11th and Bishop, Rolla, has become a member of Mid-Missouri County Medical Society. Dr. Heilbrunn is a native of Gotha, Germany, received her preliminary education at the Gymnasium Ernestinum and her M.D. degree at the University of Hamburg in 1962. She is in general practice.

Kyu Sook Her, M.D., 1401 S. Grand, St. Louis, has become a member of St. Louis Medical Society. Dr. Her is a native of Toegu, Korea, received her preliminary education at Kyunz-Buk University and her M.D. degree at Kyunz-Buk University in 1950. She specializes in pediatrics.

Michael F. Hughes, M.D., 305 West 43rd, Kansas City, has become a member of Jackson County Medical Society. Dr. Hughes is a native of Kansas City, received his preliminary education at Rockhurst College and his M.D. degree at St. Louis University in 1963. He specializes in otolaryngology.

Charles J. Johnson, M.D., 4960 Audubon, St. Louis, has become a member of St. Louis Medical Society. Dr. Johnson is a native of Seattle, Wash., received his preliminary education at the University of Wisconsin and his M.D. degree at the University of Wisconsin in 1959. He specializes in plastic surgery.

M. Osman Kahn, M.D., 510 S. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Kahn is a native of Guriani, Rohtak, India, received his preliminary education at Islamia College and his M.D. degree at King Edward Medical College in 1950. He specializes in radiological diagnosis.

Jeannie J. Kinzie, M.D., 510 S. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Kinzie is a native of Great Falls, Mont., received her preliminary education at Montana State University and her M.D. degree at Washington University in 1965. She specializes in radiology.

Frederick T. Kraus, M.D., 5535 Delmar, St. Louis, has become a member of St. Louis Medical Society. Dr. Kraus is a native of Oklahoma City, Okla., received his preliminary education at the College of William and Mary and his M.D. degree at Washington University in 1955. He specializes in pathology.

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Donald J. Kroe, M.D., 100 N. Euclid, St. Louis, has become a member of St. Louis Medical Society. Dr. Kroe is a native of Marshall, Ark., received his preliminary education at the University of North Carolina and his M.D. degree at Duke University in 1963. He specializes in pathology.

Leticia D. Lacson, M.D., 1420 Grattan, St. Louis, has become a member of St. Louis Medical Society. Dr. Lacson is a native of Manila, Philippines, received her preliminary education at Paco Catholic School and her M.D. degree at the University of the Philippines in 1965. She specializes in psychiatry.

Fransiska Lee, M.D., 510 S. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Lee is a native of Sydney, Australia, received her preliminary education at Washington University and her M.D. degree at Washington University in 1966. She specializes in radiation therapy.

Gerald B. Lee, M.D., Meyer Blvd. at Prospect, Kansas City, has become a member of Jackson County Medical Society. Dr. Lee is a native of Jefferson City, received his preliminary education at Washington University and his M.D. degree at the University of Missouri in 1958. He specializes in internal medicine.

Kun T. Liao, M.D., 100 N. Euclid, St. Louis, has become a member of St. Louis Medical Society. Dr. Liao is a native of Taiwan, received his preliminary education at National Taiwan University and his M.D. degree at National Taiwan University in 1958. He specializes in pathology.

H. Relton McCarroll, Jr., M.D., 4960 Audubon Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. McCarroll is a native of St. Louis, received his preliminary education at Princeton University and his M.D. degree at Columbia University in 1962. He specializes in orthopedic surgery.

Napoleon S. Maminta, M.D., 2284 Whitby Rd., Chesterfield, has become a member of St. Louis Medical Society. Dr. Maminta is a native of Surigae City, Philippines, received his preliminary education at the University of the Philippines and his M.D. degree at the University of the Philippines in 1956. He specializes in pathology.

James D. Martin, M.D., 3823 S. Campbell, Springfield, has become a member of Greene County Medical Society. Dr. Martin is a native of Harrison, Ark., received his preliminary education at Little Rock University and his M.D. degree from the University of Arkansas in 1966. He is in family practice.

Duk Jae Park, M.D., 1515 Lafayette, St. Louis, has become a member of the St. Louis Medical Society. Dr. Park is a native of Pusan, Korea, received his preliminary education at Yon-Sei University and his M.D. degree at Yon-Sei University in 1960. He specializes in internal medicine.

Samuel G. Ramirez, M.D., 1520 S. Brentwood Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Ramirez is a native of Cabagan, Isabela, Philippines, received his preliminary education at the University of Santo Tomas and his M.D. degree at the University of Santo Tomas in 1961. He specializes in internal medicine.

P. G. Ravindranathan, M.D., 3508 Russell, St. Louis, has become a member of St. Louis Medical Society. Dr. Ravindranathan is a native of N. Parur, India and received his M.D. degree at Calicut Medical College in 1963. He specializes in general surgery.

Manuel W. Runez, M.D., 6150 Oakland Ave., St. Louis, has become a member of St. Louis Medical Society. Dr. Runez is a native of Manila, Philippines, received his preliminary education at Far Eastern University and his M.D. degree at Far Eastern University in 1965. He specializes in general surgery.

Robert F. Shaw, M.D., 605 Wood Court, Liberty, has become a member of Clay County Medical Society. Dr. Shaw is a native of Galena, Kan., received his preliminary education at Pittsburg Teachers College and his M.D. degree at the University of Kansas in 1954. He is in general practice.

Ivan W. Sletten, M.D., 5400 Arsenal, St. Louis, has become a member of St. Louis Medical Society. Dr. Sletten is a native of Chetek, Wis., received his preliminary education at the University of Wisconsin and his M.D. degree at the University of Wisconsin in 1954. He specializes in psychiatry.

John H. Stanley, M.D., 4643 Wyandotte, Kansas City, has become a member of Jackson County Medical Society. Dr. Stanley is a native of Massena, Ia., received his preliminary education at St. Ambrose College and his M.D. degree at the University of Iowa in 1965. He specializes in child psychiatry.

Neil Steinhoff, M.D., 4949 Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Steinhoff is a native of Cleveland, Ohio, received his preliminary education at Kalamazoo College and his M.D. degree at the University of Michigan in 1966. He specializes in cardiothoracic surgery.

Cesar Villanueva, M.D., 4911 Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Villanueva is a native of Manila, Philippines, received his preliminary education at the University of the Philippines and his M.D. degree at the University of the Philippines in 1965. He specializes in obstetrics and gynecology.

Ronald P. Wilbois, M.D., 4911 Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Wilbois is a native of Chicago, Ill., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois in 1964. He specializes in obstetrics and gynecology.

In Memoriam

Daman, George A., M.D., St. Louis, a graduate of Washington University, 1942; member St. Louis Medical Society; age, 55; died Feb. 15, 1972.

McCarroll, Henry R., M.D., St. Louis, a graduate of Washington University, 1931; member St. Louis Medical Society; age, 66; died Feb. 27, 1972.

Halpern, L. K., M.D., St. Louis, a graduate of the University of Colorado, 1937; member St. Louis County Medical Society; age, 59; died March 8, 1972.

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Continuing Education Coming Events

May 4-5	**Symposium: Inhalation Therapy** Postgraduate Medical Education K.U. School of Medicine, Kansas City, Kan. 66103
May 5	**Tenth Annual Pediatric Seminar (Pediatric Surgery)** Baptist Memorial Hospital, 6601 Rockhill Rd., Kansas City 64131
May 7	**Symposium: Being a Physician in Our Time** St. Louis Academy of Family Physicians, Chase-Park Plaza Hotel, St. Louis
May 10-11	**1972 Spring Clinical Conference (Clinical Antibiotics)** Continuing Education, M.U. School of Medicine Columbia 65201
May 10-12	**Obstetrics and Gynecology** Danciger Institute for Health Sciences Menorah Medical Center, 4949 Rockhill Rd., Kansas City 64110
May 11-12	**Third Annual Meeting—Heart of America Association of Blood Banks** Stouffer's Riverfront Inn, St. Louis
May 24-25	**Symposium: Pathology of the Lung** Postgraduate Medical Education K.U. School of Medicine, Kansas City, Kan. 66103
June 5-6	**Second International Symposium on Intestinal Microflora** Continuing Education, M.U. School of Medicine Medical Center Auditorium, Columbia 65201
June 14-15	**Headache Seminar** Continuing Education, M.U. School of Medicine Columbia 65201

Professional Meeting—Missouri Chapter, American College of Surgeons

The Bel Air East Motel, Fourth and Washington Streets, St. Louis, will be the site of the fourth Annual Professional Meeting of the Missouri Chapter of the American College of Surgeons on June 2-3.

Slated for discussion will be such topics as Orthopedics; Anesthesiology; Ear, Nose and Throat; Plastic; Thoracic and Cardiovascular; Genito-urinary and General Surgery. C. Rollins Hanlon, M.D., F.A.C.S., Director of the American College of Surgeons, will speak on current activities of the College. John W. Mayer, M.D., F.A.C.S. of Kansas City, will speak on medicoeconomics within the state of Missouri.

On the evening of June 1, members of the Missouri Chapter are invited to the Fundamental Forum sponsored by the St. Louis Surgical Society to be held at the St. Louis Medical Society.

The Missouri Chapter's Professional Program is open to all members of the medical profession. To be in attendance, reservations should be made for the nights of June 1 and 2. Reservations for both family and guests of the members of the Chapter will be welcomed.

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Semiannual Professional Program

Current Management of Lung Cancer

May 20, 1972 **Ramada Inn, Columbia**

8:30 AM Registration.

9:00 AM *Welcome,* Reginald P. Pugh, M.D., Chief of Staff, EFSCH.

9:05 AM *Rates of Growth and Natural History of Lung Cancer,* John S. Spratt, M.D., Director, CRC and Chief, Department of Surgery, EFSCH.

9:30 AM *Roentgenographic Signs of Lung Cancer,* C. H. Joseph Chang, M.D., University of Kansas Medical Center, Kansas City, Kan.

10:00 AM Coffee Break.

10:30 AM *Hormonal Syndromes Associated with Lung Cancer,* Charles E. Eastridge, M.D., Veterans Administration Hospital, Memphis, Tenn.

11:00 AM *Role of Surgery in Diagnosis and Treatment,* Arthur E. Baue, M.D., Jewish Hospital, St. Louis.

11:30 AM *Thoracotomy Experiences at EFSCH (1940-1970),* Yeu-Tsu N. Lee, M.D., Department of Surgery, EFSCH.

11:45 AM Questions.

12 NOON Luncheon, Ramada Inn.

1:00 PM *Role of Radiotherapy in Treatment,* James M. Thomson, M.D., Chief, Department of Radiotherapy, EFSCH.

1:30 PM *Role of Chemotherapy in Treatment,* Reginald P. Pugh, M.D.

2:00 PM Coffee Break.

2:30 PM *CPC Presentation (Two Cases)*
Moderator: Carlos Perez-Mesa, M.D., Chief, Department of Pathology, EFSCH.
Panelists: Arthur E. Baue, M.D.
C. H. Joseph Chang, M.D.
Charles E. Eastridge, M.D.
Reginald P. Pugh, M.D.
John S. Spratt, M.D.
James M. Thomson, M.D.

4:00 PM Adjourn.

The EFSCH-CRC Professional Program has been approved for five elective credit hours by the American Academy of General Practice and is open to any interested medical personnel. For additional information, write to Yeu-Tsu N. Lee, M.D., Cancer Research Center, Business 50 and Garth Ave., Columbia, Mo. 65201.

This program is sponsored in part by the John Modlin Memorial Lecture Fund established at the Cancer Research Center.

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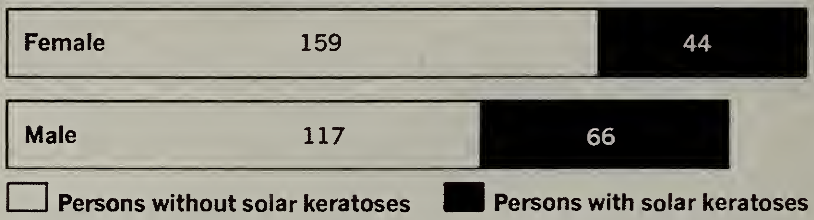
Prevalence of solar keratoses in white persons over 40 in Tipton County, Tennessee



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Review Session on Rheumatology

The American Rheumatism Association Section of The Arthritis Foundation is offering a Review Session in Rheumatology mainly for physicians wishing to take the subspecialty examinations for certification in Rheumatology which will be given for the first time this year by the American Board of Internal Medicine on Oct. 17, 1972.

The Review Session will take place on Saturday, June 10, 1972 at the Fairmont Hotel in Dallas, Tex. in conjunction with the annual meeting of the American Rheumatism Association. The session has been arranged by a subcommittee of the ARA, chaired by Dr. Charles M. Plotz of Downstate Medical Center in Brooklyn, N. Y.

Registration fee for the session is $50 (including luncheon). Please send your reservation to The Executive Secretary, American Rheumatism Association Section, The Arthritis Foundation, 1212 Avenue of the Americas, New York, N. Y. 10036 no later than May 25, 1972. Make checks payable to The Arthritis Foundation.

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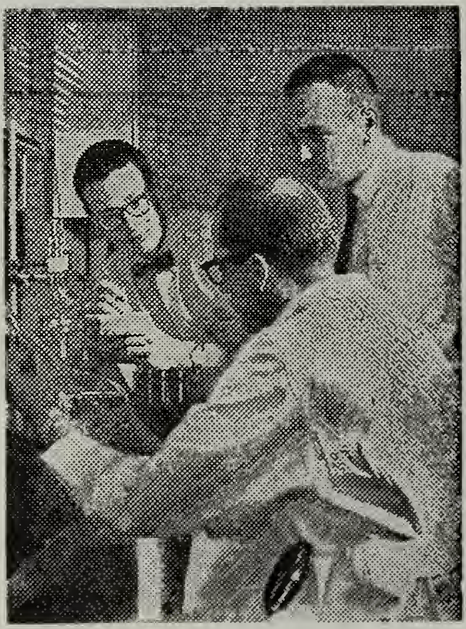

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Missouri Medicine in Review

FORTY YEARS AGO

A relatively new drug, sodium amytal (sodium iso-amylethyl barbiturate) was first prepared and used as an anesthetic on dogs by Page and Coryllos in 1926. It was first used as a surgical anesthetic in man by Zerfas, McCallum and their associates in 1929. Bleckwenn, in 1930, reported its use in various types of psychotic patients with mental excitement and depression.

An estimate of 100,000 drug addicts in the United States is an overstatement. J. J. Anslinger, Commissioner of Narcotics, United States Treasury Department, made this statement in testimony given recently to the House Appropriations Committee. He placed the average age of the addicts at 38 years and said, "We are not getting young addicts in this country. The youth of this country is not narcotic-minded." Imprisonment rarely cures a drug addict of his affliction, Mr. Anslinger said. He stated that the addiction in agricultural districts is very small and that most addicts west of the eastern seaboard are morphine users. New York has a heroin problem and San Francisco has to deal with opium smoking. Cocaine is used mostly among the Negro population, although there is some cocaine addiction among the whites.

TWENTY-FIVE YEARS AGO

The American Medical Association has formed a new organization of its members known as "National Conference of County Medical Society Officers." The first meeting will take place in Atlantic City, N. J. on Sunday, June 8, 1947.

The 88th Annual Session of the MSMA convened in Kansas City on March 31-April 2 with 930 physicians, guests and exhibitors registered for the meeting. Morris B. Simpson, M.D. was installed as President by Howard G. Goodrich, M.D. of Hannibal, retiring President, at the Wednesday afternoon session of the House of Delegates.

John H. Dyer, M.D., Warrenton, was honored by his community for 55 years of medical practice with a program and reception at the College Methodist Church on February 2.

Joseph L. Fisher, M.D., St. Joseph, was elected president of the staff of the Missouri Methodist Hospital in St. Joseph for 1947. Other officers are J. M. Hughes, M.D., vice-president; Maxwell Day, M.D., secretary-treasurer; and Drs. Claude S. Grant, O. E. Whitsell and H. W. Carle, Jr., members of the executive committee.

C. Souter Smith, M.D., Springfield, was installed as president of the Kansas City Society of Ophthalmology and Otolaryngology on April 2.

TEN YEARS AGO

The House of Delegates of the 104th Annual Session of the MSMA elected Kenneth C. Hollweg, M.D., Kansas City, as President-Elect. Doctor Hollweg will be installed as President at the Annual Session in Kansas City on March 24-27, 1963. Dr. Donald M. Dowell, Chillicothe, was installed as President at the 1962 session. Other officers elected at the 1962 meeting were Drs. John I. Matthews, Jefferson City, Secretary; Charles R. Doyle, St. Louis, Treasurer; and Drs. C. G. Stauffacher of Sedalia, E. L. Spence of Kennett and Forrest C. Long of Savannah, Vice-Presidents.

At its meeting held during the Annual Session, the Missouri State Surgical Society elected Eugene M. Bricker, M.D., St. Louis, as president-elect. A. P. Rowlette, M.D., Moberly, presided at the meeting and Ralph R. Coffey, M.D., Kansas City, was installed as president.

The University of Missouri Alumni Association and the alumni of the School of Medicine paid tribute to M. Pinson Neal, M.D. of Columbia and J. Eugene Lewis, Jr., M.D. of St. Louis at a luncheon meeting during the Annual Session of the Association.

The American Society of Abdominal Surgeons elected Dr. Durand Benjamin, St. Louis, as vice-president during a meeting early in April.

Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

SUPPLEMENT

Volume 69, Number 5 May, 1972

The Missouri Society of Pathologists
and the
University of Kansas School of Medicine

SEMINAR
on
DISEASES OF THE NERVOUS SYSTEM

DISCUSSANTS:

DEWEY K. ZIEGLER, M.D.
Professor of Medicine (Neurology)
University of Kansas Medical Center

JOHN J. KEPES, M.D.
Professor of Pathology
University of Kansas Medical Center

SEMINAR
ON DISEASES OF THE NERVOUS SYSTEM

April 4, 1970—University of Kansas Medical Center

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Preface

This supplement represents a "first" for Missouri Medicine. *We realize we have set a precedent we may not be able to follow, as the attending problems are such that we might not be able to repeat the performance.*

As Editor, I wish to emphasize a few credits. First come the discussants and the sponsoring organizations, the Missouri Society of Pathologists and the University of Kansas School of Medicine. The organizations financed the actual publication costs. Dr. David L. Zacharias, program chairman of the Missouri Society of Pathologists, participated in arranging the publication. Dr. John J. Kepes deserves praise for editing the discussions before they reached us. Anyone who has assembled conference or seminar material can attest to the difficult task involved.

Finally, I want to single out our managing editor, Miss Jean Duensing, whose journalistic expertise and hard work made this issue possible. While this can be said of every issue of Missouri Medicine, *the supplement demanded more work and problem solving than I had a right to expect. The rest of the Jefferson City office can share her credit for the extra work required.*

If I have neglected an acknowledgment, I deserve to hear about it. Meantime, we hope our readers profit from the issue.

JOSEPH V. FINNEGAN, M.D.
Editor, Missouri Medicine

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Case # 1. Metastatic Malignant Melanoma in Cerebellum With Seven-Year Survival

Dr. Kepes: Ladies and gentlemen, welcome to the Missouri Society of Pathologists Seminar on Nervous System Diseases. Most of the cases are from this area—either the Kansas University Medical Center (KUMC) or other hospitals in Kansas City, Mo. and the state of Kansas. We have only three slides from the outside. One was contributed by Dr. Guido Coggi, a pathologist from Milan who had worked in our department and, as a parting gift, sent us Case # 8. Case # 4 is from the Neurological Institute of Vienna, where I spent my sabbatical last year, courtesy of Dr. Kurt Jellinger. Dr. E. P. Richardson from Massachusetts General Hospital kindly sent us a block for Case # 11.

This is the case of a 46-year-old white man who was well until November, 1960, when he noted headaches and weakness in his left side. He was admitted to KUMC. The diagnostic workup suggested a posterior fossa tumor. He was explored and a tumor involving the cerebellar vermis and the fourth ventricle was found. The tumor was removed and the slides are from this lesion. The patient did well for seven years afterwards. In 1967, he was readmitted with increased intracranial pressure. Reexploration of the area of surgery showed no recurrent tumor, only adhesions and an arachnoidal cyst. A ventriculoatrial shunt was performed and the pressure decreased. The headache decreased, but his vision steadily deteriorated. He returned to his home town in rural Kansas where he died late in 1967.

Dr. Kepes: I will have to give you some of the "inside story" on this case. I was up in the old place in surgical pathology one day in 1967, when the late Dr. Williamson* walked in. He had with him the slides from this patient's cerebellar tumor of 1960, the patient then being readmitted. Routinely, we like to have the slides reevaluated if anyone comes in after a previous surgery. Dr. Williamson said that this case was signed out as an ependymoma in 1960 and wanted me to look at it to make sure that is what it was; the patient was back now and had increased pressure, etc.

I looked at the slides and was flabbergasted by them as I am sure you were, too. The first slide is from the original surgery. You see the cerebellum, a portion of the granular layer and some partly necrotic tumor next to it. Here you can see the basic architecture of the tumor. Obviously, it is a papillary tumor with blood vessels in the core of these papillae. Also, there are columnar cells surrounding the blood vessels (Fig. 1). Of course, in any malignant tumor, one may see surviving cells around blood vessels that give a "papillary" arrangement. You obviously have to be suspicious of that. But it seems that there is not enough necrosis here to fully explain such an arrangement, so it seems to be a genuine papillary tumor. Since it was in the fourth ventricle, it is not too surprising that it was believed to be an ependymoma.

There are certain features, however, that are against this diagnosis. Most importantly, there is no tapering of the cells as they come down to the blood vessel wall. On high-power view, you can see that the whole broad base of the cell is attached to the capillary wall. I wondered if this could have been a metastatic carcinoma. I went back to the clinicians and asked if the patient had been worked up for primaries and was told that no primaries were found. That was seven years ago. Now, he was back and still he had no primary. So, the surgeons felt that this was a local primary in the brain.

Well, I was not quite satisfied. There were certain features, such as very prominent nucleoli here and there (Fig. 2). Obviously, it was malignant be-

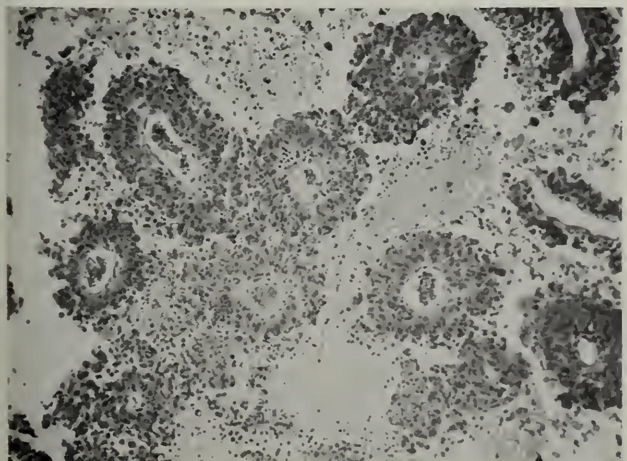

Fig. 1 Tumor cells are in papillary arrangement around blood vessels. Hemorrhage and necrosis are also in evidence.

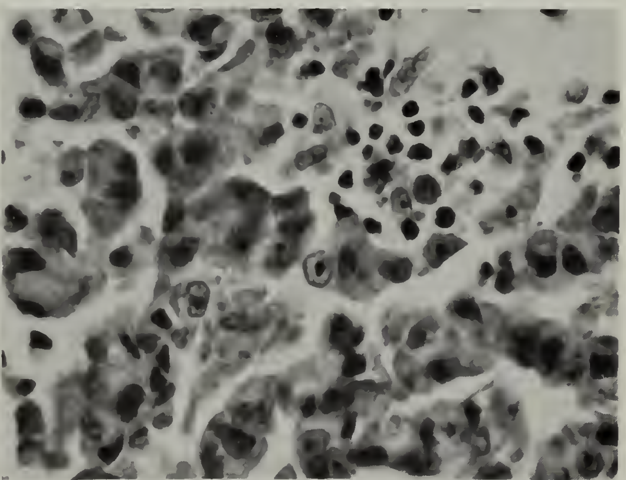

Fig. 2 The tumor cells are cuboidal and polyhedral. Nucleoli are prominent.

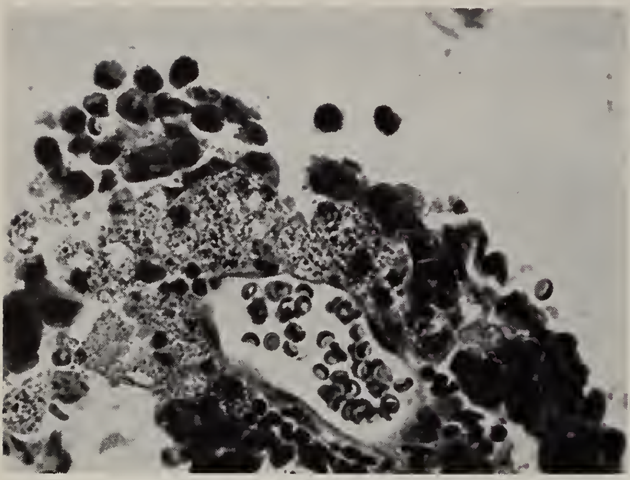

Fig. 3 In this area, several tumor cells contain a granular brown pigment which reacted as melanin on special stains.

cause there were many mitotic figures and marked pleomorphism. I just did not know what it was. In cases like this, I just put the slide aside and wait.

You may not believe me, but no sooner did I put the slide away than a section came in from Dr. Robinson's service (plastic surgery). This was from a neck dissection of a lady who had a malignant melanoma removed from her temple. As I looked at the first lymph node, I saw immediately that it was the same tumor as in our problem slide. I have never before seen papillary melanomas, but there it was in the lymph node from another patient, and I said, "Wait, let us get back to those other slides and see if we can find any melanin." After long searching, we did indeed find some melanin granules (Fig. 3).

If those of you who did not diagnose this as a melanoma will go back to your own slides, you will find the same pigment. The pigment was negative on iron stain. In the area of beginning necrosis, the pigment is dislodged from the cells. We then did a Schmorl stain and saw this turquoise blue-colored pigment. This is the color you get on a positive melanin stain, and it was rather abundant. Next is a Fontana silver stain, and melanin, being argentaffinic, will reduce silver salts to metallic silver, which shows up as black granules.

The patient came in in 1967 and then went home and he died later. However, we were fortunate enough to secure an autopsy permit. The autopsy was done here at KU. There were extensive metastases in the brain and liver. The question remained —where was the primary? Well, after we made a diagnosis of melanoma in 1967, I went down to see the patient while he was still alive and started digging a little into the past history. It turned out that there was a mole removed from his chin, probably about six or seven months before the first surgery. The time element was not quite certain. However, there had been no histological examination of the mole. I have a very strong feeling that this was the primary lesion.

Diagnoses submitted by mail:

Malignant choroid papilloma	6
Carcinoma	4
Ependymoma	12
Ependymoma gr. iii	2
Metastatic melanoma	4

These are the diagnoses we received. They included malignant choroid papilloma, carcinoma, ependymoma and grade III ependymoma. I can agree that this is a malignant papillary tumor. Four people ran into the pigment and diagnosed it as metastatic melanoma, or perhaps they were impressed by the big nucleoli that you usually do not see in ependymomas. There are two interesting features about this case. One is the histologic problem and the other is that we have a man who had a metastatic melanoma in the brain and who lived for seven years afterwards; he not only lived, but he had an active and good life. At first, this seems to be quite unusual, but I will hand out a list of literature at the end of the conference. It includes a paper by Hendricks *et al* in *Cancer* in September of 1969 discussing this situation.

This is a review of some 216 cases of melanoma from the University of Michigan. Thirty-five patients (16.2%) who were first admitted with metastases, as our patient here, lived five years or longer after the first visit. Some of these patients had melanomas in the lower extremities that hit the inguinal lymph nodes and they lived for 13, 17 and 19 years, respectively. One patient had a local recurrence four years after the primary was removed, and then a metastasis to the brain was removed two years later. However, the patient lived for 13 more years after the craniotomy. There was another patient who developed pulmonary metastases one year after the primary was removed. These were resected and the patient is well and free of neoplasm 11 years after the removal of these metastases.

So, occasionally we run into such cases of melanoma. Everybody knows that there may be a totally unpredictable course between the primary and the appearance of metastases. We can have "nevi" removed and ten years later, the metastases hit us. It is less commonly known that even after the metastases are diagnosed, some patients may live for such considerable length of time.

Dr. Ziegler: We, as clinicians, know that sometimes we put patients aside and wait, and it is nice to know that pathologists sometimes put slides aside and wait before making a decision.

This is a relatively rare condition, and the literature is rather sparse on clinical studies of malignant melanoma. Dr. Kepes has already cited this article in *Cancer* which, other than citing the author's own experience, does not give a bibliography. There was a review of cases in the *Journal of Pathology and Bacteriology*, in 1957. Russell and Rubinstein's book has an interesting little section. They discuss melanin in the nervous system and point out that melanin-containing cells occur in the pia of adults but are rarely visible except over the ventral aspect of the lower medulla, and there are rarely patches of visible melanin in other situations in the brain. This occasionally is associated with cutaneous pigmented nevi so-called neurocutaneous melanosis. When it occurs in large amounts, it is a genetic trait and carried by dominant genes.

Although this is not a primary melanoma of the nervous system, I think it is interesting to know that there exist such melanomas of the nervous system and they seem to vary from fairly benign to others which have a high degree of malignancy. There is a case of a 37-year-old woman with melanotic tumor which was restricted to the roof of the fourth ventricle and similar to the location in this case. It was removed twice and the patient had a good recovery and fairly long prognosis similar to the cases reported in the article Dr. Kepes cited. More often, apparently, the growth of melanoma of the nervous system is diffuse, involving many areas of the spinal cord and the brain. Malignant cells seem to be able to spread through the spinal fluid as other malignant tumors usually do. Apparently, a primary malignant melanoma of the meninges can occasionally metastasize to other organs.

The meningeal melanosis cases seem to have a peak at a younger age—in the fourth decade in life—and the cutaneous melanomas seem to occur later. Now, the metastatic melanomas characteristically are multiple and they have no specific clinical characteristics any more than any other metastatic tumors do with an exception: this is one of the tumors that has a fairly high predilection for hemorrhage including massive subarachnoid bleeding. So, when we encounter an adult with massive subarachnoid hemorrhage, this is one of the rare causes that we think of.

One of the interesting things about the case, which we might comment on now, is the reason for the deterioration of vision in this man in the latter part of his course. I suppose the best possibility is that he developed increased intracranial pressure with longstanding papilledema and secondary optic atrophy. The deterioration in vision occurs from either optic nerve involvement or bilateral occipital cortex involvement. For the patient to have markedly impaired vision, there has to be bilateral disease of the occipital lobes or else the dominant occipital lobe plus the corpus callosum. One can usually tell clinically whether the disease is in the optic nerves or in the occipital lobes because, most importantly, with blindness from optic nerve disease, one has impaired pupillary reflexes and marked or absolute loss of vision, including light, whereas with lesions of the occipital lobes and occipital cortex, the pupillary reactions are normal. Usually, the patient has fragments or portions of vision retained and not a complete visual loss.

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Russell, D. S. and Rubinstein, L. J.: Pathology of Tumors of the Nervous System. Baltimore, Williams and Wilkins, 1963, pp. 37-38.

Case # 2. Tuberous Sclerosis in a Newborn Infant

This was the first KUMC admission for this four-day-old Negro male infant who was the product of an uncomplicated term gestation. However, he was noted to have a systolic murmur at St. Mary's Hospital in Kansas City, Mo. The baby had tachypnea and tachycardia. There have been no cyanotic episodes. Both the father and mother are 40 years old, living and well. Siblings are a 13-year-old sister with seizures of unknown etiology since the age of five and two more sisters with heart murmurs of unknown origin.

Examination: The head was normocephalic; there were no abnormalities of eyes, nose and throat. Shortly after admission, the child became apneic and had ventricular fibrillation and died. Final clinical diagnosis was congenital heart disease. The nature of the heart changes will be discussed at the meeting. Sections, however, are from the left frontal lobe of the brain.

Dr. Kepes: This case is interesting because in most instances, when a patient comes to autopsy, you know whether or not it is a case for neuropathology. Sometimes, however, it starts out with something different and only later does it turn out to be a neuropathological case.

The baby had a very loud systolic murmur, which is easily understood when you look at this open heart because there are large masses in the heart. One is in the left ventricular wall and there is a smaller mass, but it is more strategically located in the aortic outflow tract (like a ball valve) and this mass obstructed the outflow tract (Fig. 1) and explains the difficulty the baby was in and also the harsh systolic murmur heard. This yellow-brown tumor has some similarity to the musculature of the heart and grossly was thought to be a rhabdomyoma. This smaller one was more loose and translucent, and we thought that possibly this could be another type of tumor, myxoma of the endocardium, but it turned out that both were essentially of the

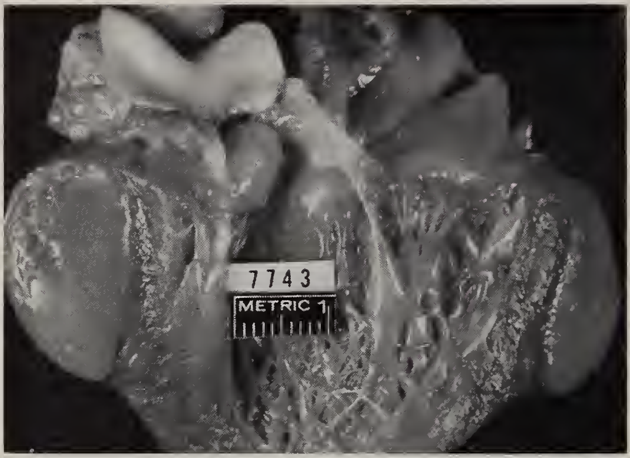

Fig. 1 Two rhabdomyomas were present in this infant's heart: one in the wall of the left ventricle and the other obstructing the aortic outflow tract.

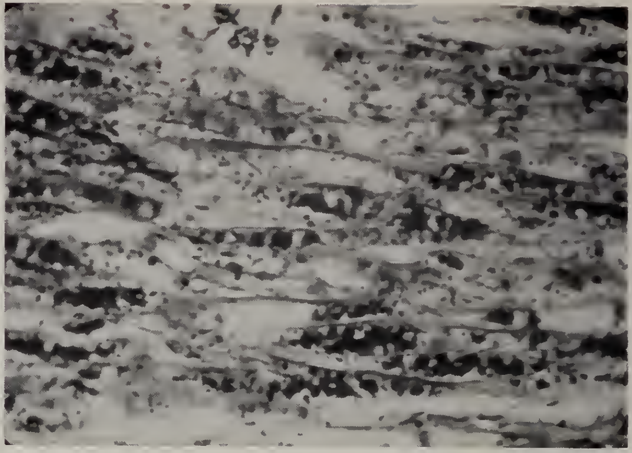

Fig. 2 PAS positive glycogen droplets in fibers of heart tumor.

same type histologically.

This slide shows a section of a lesion in the heart which shows many vacuoles. The cells in between are rudimentary striated muscle cells. Here is a PAS stain on an alcohol-fixed specimen of the heart. Most of the vacuoles are filled with strongly PAS positive material (negative after diastase); (Fig. 2) it was also positive Best's Carmine stain, thus it proved to be glycogen. As to the rest of the material here, if we can get out of the vacuoles and look at the cytoplasmic areas by lowering the condensor, you can look at some cross striations. Fortunately, some of the tissue was saved in glutaraldehyde and we could look at it under the electron microscope.

This slide shows you that the tumor has cross striations in just about every area (Fig. 3). So, we are dealing with a rhabdomyoma of the heart. When I heard about the case, I rushed down to the autopsy room and took a look at the brain immediately, because if the patient has a rhabdomyoma of the heart, there is probably something in the brain, too.

There were indeed some firm areas in the cerebral cortex. First of all, the normal gyri of the brain are not circular; they go in one direction or the other but they do not form a circle. This one did (Fig. 4). This diagnosis is made much better with your fingertips than by looking at it, because there is a very great difference in consistency. This is a very firm area and the neighboring brain was rather soft as it should be in an infant. Areas like this are found in both hemispheres.

This is a section, H & E stained, from the brain next to the lesion. Look at your own slide and you will see an area like this. It is typical infantile cortex. People who have not seen many infantile cortices are a little bewildered by the smallness of the nerve cells. The cortex is late to develop, and if you have the brain of an infant and look at the medulla or pons, you find perfectly well-formed neurons. Look at the cortex and you will find little dark cells that really look like lymphocytes but are immature neurons. In a few weeks or months, these cells will develop into full-fledged neurons. This is the way the normal cortex looks. In striking contrast, there were other areas in which there was a distortion of the normal cortical architecture. There was a "warty" outgrowth on the surface containing big protoplasmic astrocytes (Fig. 5).

Inside the cortex are found areas of huge cells with eosinophilic cytoplasms, some with eccentric nuclei. Reading the mailed-in diagnoses, it is evident

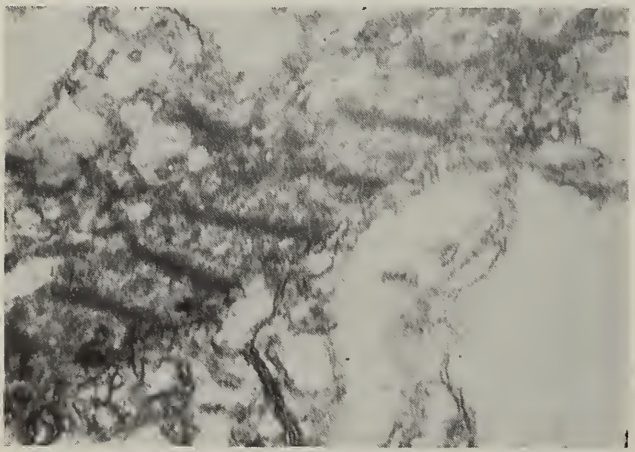

Fig. 3 Low-power electron micrograph shows cross striation in heart tumor.

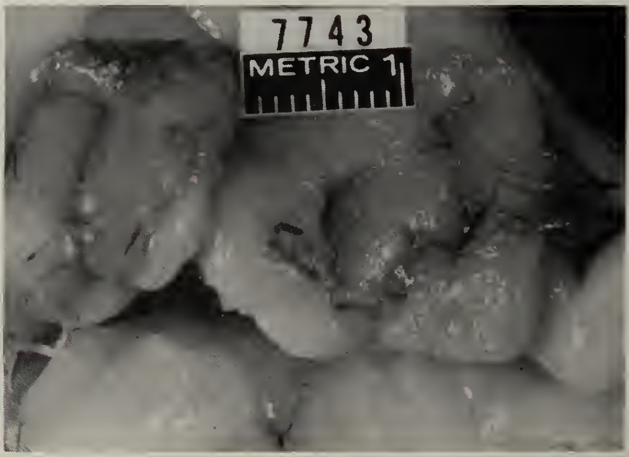

Fig. 4 Irregular deformed gyri form a circular pattern on the surface of the brain.

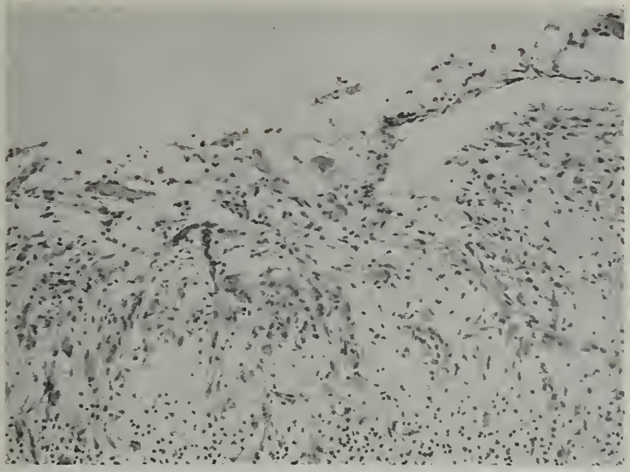

Fig. 5 Wart-like outgrowth of large astrocytes on surface of brain.

some people thought of some storage disease. However, there was nothing foamy or vacuolated about these cells. They have a homogenous cytoplasm. It is more than just swollen; you can have "gemistocytic" swollen astrocytes in any condition, but they do not get this big. There is really an extra measure of bigness about these cells due to a genetically determined abnormality of the growth of these cells (Fig. 6).

Here is a mixture of astrocytes and nerve cells in the cortex. The nerve cells are also quite abnormal in their position and their size. Mixed in with abnormally large cells, you find some normal cells: normal astrocytes and normal neurons. Another feature here is calcification; already part of the cortex is calcified.

This is an important area because side-by-side, you see a neuron recognized by the prominent nucleolus and Nissl substance, and sticking closely to it is a big astrocyte with an eccentric nucleus. We did some Cajal impregnation to show some bizzarre astrocytes; you can see the processes much better. Here you can see some of these hypertrophied astrocytes with their characteristic sucking feet attached to the wall of a capillary. They are about four to six times as large as the normal cell would be (Fig. 7).

This is a case of tuberous sclerosis. As you know, these patients have abnormalities other than those in the brain. In this particular case, it was in the heart. The only unusual thing about this case is the early age. There are not too many cases of tuberous sclerosis in infants. Most of these people are discovered because of epileptic seizures or classical skin changes, such as so-called sebaceous adenomas. But every once in a while, the heart changes are manifested at an early age or sometimes these babies die for some other reason and at autopsy, you find the diagnostic features.

In the February, 1970 issue of *Neurology*, Thibaud and Manuelidis reviewed 12 other reported cases of infantile tuberous sclerosis and then they added their own. The first case was reported by Von Recklinghausen in 1862. He was a very prolific man. (He was the same man who described neurofibromatosis and hyperparathyroidism.) The very first case in 1863 had multiple rhabdomyomas in the heart. In the brain, there were nodules. I am not going to talk too much about the clinical manifestations. I will leave this to Dr. Ziegler.

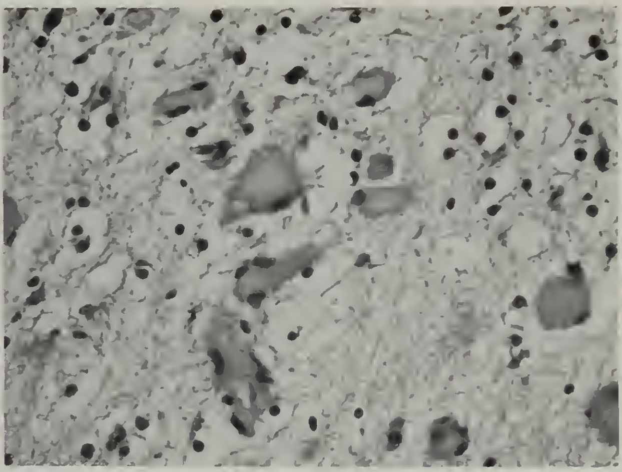

Fig. 6 Huge hypertrophic astrocytes in area of tuber.

Diagnoses submitted by mail:

Storage disease (Gaucher?)	4
Gangliosidosis	2
Tuberous sclerosis	14
Astrocytic gliosis	2

The list of diagnoses includes storage disease of the Gaucher type and gangliosidosis, which, again, is a storage disease. I can see how swollen, big cells would impress people as having some kind of stored material. Others thought it to be tuberous sclerosis because of the histological features and the history of heart disease. Two persons called it astrocytic gliosis, which is correct, but this is a little bit more than ordinary gliosis. We have cytologically abnormal cells here.

Dr. Ziegler: This very interesting disease affects, as you know, many organs in the body. In contrast to Case # 1, there is extensive literature on tuberous sclerosis, and the interest has been maintained

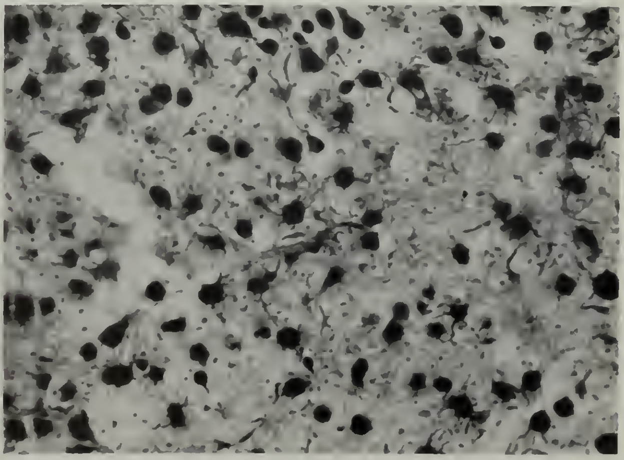

Fig. 7 Astrocytes on Cajal impregnation.

over recent years because the varieties of its manifestations have been pointed out fairly extensively and we now recognize that many cases of tuberous sclerosis exist which do not fit into well-recognized categories.

The disease, as Dr. Kepes has said, is classically said to be one with a triad of adenoma sebaceum of the skin, mental retardation and seizures. The first thing that is apparent is that both mental retardation and seizures can be absent in cases of tuberous sclerosis, although seizures more uncommonly. It is very rare to have a complete absence of skin abnormality, although the adenoma sebaceum may not be very typical and fairly minor and, therefore, not easily recognized. As Dr. Kepes said, the disease was described more than 100 years ago by Dr. Recklinghausen, who described the case in a newborn, also.

One of the very good recent reviews is to be found in the *Mayo Clinic Proceedings* in January, 1967. I will go through some of their cases and what they found and comment about the illness as we go along. They introduce this subject with a little history of the disease.

The facial lesions were described in 1890. In 1920, the phakomas or the retinal lesions were first described and the disease was frequently called phakomatosis. The retinal lesions, when seen, are quite characteristic. They are well-defined masses in the retina which are pale yellow in color and contain abnormal elements of a very complex nature. Most of the cases are thought to be due to a dominant gene, and this is important to know in discussing genetic counseling.

Some people have questioned the existence of recessive genes, however. There are cases known with patients of normal intelligence. There were cases described in the *JAMA* awhile ago of lesions of tuberous sclerosis in autopsies of adults who had never had seizures or indications of lowered intelligence.

Now, the Mayo Clinic cases were reviewed and these categories were considered: Adenoma sebaceum, phakomas or retinal lesions, mental retardation or epilepsy and intracranial calcification. Of their 71 patients, they found 31% with normal intelligence. I think this is rather striking. We can probably quarrel with their criteria, which we will discuss in a minute. Some of their patients were free of seizures. Seizures are a much more universal manifestation of the disease than is mental retardation. Ninety-three per cent of the patients had seizures, 83% had adenoma sebaceum and 53% had the phakomas or retinal lesions. This is very important because the retinal lesions are sometimes particularly hard to see in uncooperative children, as they frequently are, and it is easy to give in and not look around for one of these lesions. However, when one sees a lesion of this type, it is diagnostic.

Now, many skin lesions are characteristic of tuberous sclerosis and it is important to look for those. There is a characteristic skin lesion on the back called a shagreen patch. It is a roughened area of skin likened to shark skin, usually is slightly different in color from the surrounding skin, is somewhat irregular in boundary and tends to occur in the lower trunk in the back. Areas of depigmentation and hyperpigmentation occur; some cases have cafe au lait spots. A wide variety of abnormal skin lesions occur in these patients in addition to the characteristic adenoma sebaceum of the face. They found that 15% of their patients had depigmented areas.

Periungual fibromas, which are little patches of fibrosis under the fingernails, are not uncommon. They found it in about 17% of their cases. Fifty-one per cent of their patients had intracranial calcifications. This is a rather prevalent finding. The calcification is rather spotty and occurs in the abnormal glial lesions that Dr. Kepes described. These patients can have a wide variety of intracranial lesions, gliomas particularly occur.

Question from the Audience: Are there calcifications in these gliomas?

Dr. Kepes: Yes, sometimes there are. One striking feature about gliomas in tuberous sclerosis is this: there are many abnormal areas in the cortex. There also are subependymal foci of abnormal astrocytes. For reasons that are difficult to understand, it is the lesions in the ventricular wall that give rise to neoplasms and not the ones in the cortex. But even after they become neoplasms, they have the same large-bodied astrocytes. Looking at a tumor like this, you can say that this is from a patient who has tuberous sclerosis because they maintain the same shape of cells.

Dr. Ziegler: The EEG abnormalities are prominent in these cases. Even children who do not have a severe clinical seizure disorder may still have a severe EEG abnormality. I could cite a few of our patients with tuberous sclerosis who had very rare seizures.

Question from the Audience: What do most of these patients die from?

Dr. Kepes: Speaking from the standpoint of the pathologist, who looks at the people who died, most people who have tuberous sclerosis do not die from the disease unless they develop a neoplasm. Every once in awhile, however, you get a patient who dies from a heart condition. Occasionally, hamartomas of the kidney increase gradually in size until finally they crowd all the functioning parenchyma in the kidney and the patient dies of uremia. It is not common, but it has happened as reported in the *Archives of Pathology* by Schnitzer.

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Case # 3. Monstrocellular Sarcoma vs Giant Cell Glioblastoma

This patient was a 47-year-old white woman, who was admitted to KUMC in July of 1968 after nine days of persistent occipital headaches. She became lethargic and had auditory hallucinations.

On examination, she was found to be very lethargic with minimal papilledema and no other abnormalities. The left carotid angiogram showed medial and superior displacement of the left middle cerebral artery with abnormal vessels in the area of the left temporal lobe. She underwent a left temporoparietal craniotomy and a mass about 4 cm in greatest diameter was removed from the white matter. This was firm, round and appeared circumscribed, grossly having the features of a metastatic lesion. The patient did well immediately after operation, but she died at home seven months later.

Dr. Kepes: This slide shows the tumor at the time of surgery. It came out easily as metastatic tumors do. They usually almost "pop out" at the time of surgery. As you can see, it is a firm mass and has an almost shiny surface. All you need is a scanning power to see what kind of tumor this is. There are terribly large cells here, very bizarre nuclei, nucleoli, intranuclear vacuoles, nuclear herniations and phagocytosis of other cells, so really the first impression from this lesion is that it is a highly malignant giant cell tumor (Fig. 1).

Some of these cells are found to be in mitosis; in others, the cytoplasm has big protein droplets that stain positive on the trichrome stains and PAS (Fig. 2). Here is another one of those real "genetic giants." You can see that the nucleus is horribly large. It is 200 to 300 times as large as the regular tumor nucleus, and some of the smaller cells are ingested by the large one or maybe they are invading the big one. It is hard to tell in a situation like this. At any rate, they are now inside the cytoplasm of this big cell.

There is rather marked vascularity in this tumor. Some of the tumor cells seem to originate from the wall of the blood vessels, but that is not certain. However, you do not see the usual picture of astrocytomas in which tumor cells are approaching the blood vessels at a right angle. The tumor cells here are lying more parallel to the blood vessel wall.

Here you can see this phenomenon more clearly. Here is a capillary. The lining may have some swollen endothelial cells that do not look particularly malignant, but here are the tumor cells and they are situated fairly close to the vessel walls. On trichrome stain, you will find a rather large amount of collagen within the tumor, even surrounding individual tumor cells.

On the reticulin stain, all depends upon at which part of the tumor you are looking. Here is an area that really looks like a sarcoma; the reticulin fibers surround individual tumor cells and it is very tempting to regard this as a sarcomatous lesion.

Here is a high-power view of another area on reticulin stain. There are some reticulin fibers present, but there are many cells which have nothing to do with reticulum at all. If you do a stain for glial fibers, you also will find occasional strands of such fibers in the tumor, perhaps from persistent glia, but not as many as reticulum fibers. Here is a list of diagnoses. One cannot argue with monstrocellular sarcoma or monstrocellular glioblastoma or glioblasto-

Diagnoses submitted by mail:

Monstrocellular sarcoma	6
Monstrocellular sarcoma/glioblastoma	4
Glioblastoma	8
Metastatic rhabdomyosarcoma	2
Malignant meningioma	2

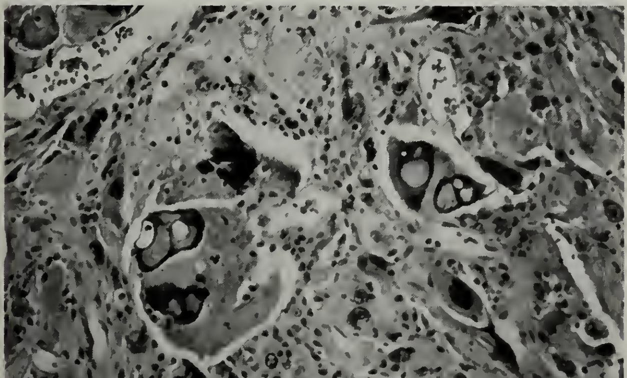

Fig. 1 Huge, multinucleated, bizarre giant cells characterize this tumor even on low-power view.

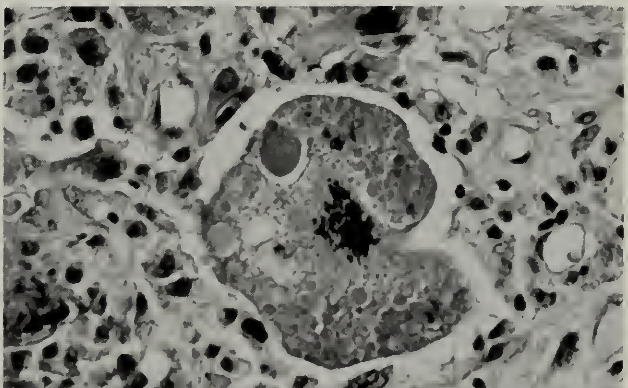

Fig. 2 A tumor cell in mitosis. The nucleus is fragmented into irregular chromosomes. The cytoplasm is filled with large protein droplets.

ma. I can see why someone suspected metastatic rhabdomyosarcoma because those also are quite wild-looking tumors, although never as wild looking as this particular tumor and the same goes for malignant meningioma.

I hope no one will be disappointed that the problem of sarcoma vs glioma cannot be solved because the final answer is not known yet. There is no other tumor in neuropathology today about which there is such controversy regarding the nature of the lesion as this particular giant cell tumor. It is a special tumor. It is not just any kind of sarcoma or glioblastoma. For one thing, you can usually remove it as a well circumscribed almost encapsulated mass. The patients are younger than the usual glioblastoma age group. Some of them live fairly long. A former associate of our Neurosurgery Department, Dr. Garcia, who is now at the University of Florida, reported a case of "monstrocellular sarcoma" with seven years survival after surgery. They found a case with a 16-year survival, also. So the gross appearance, the longer survival rate and the microscopic characteristics set this tumor apart. It was first described by Zülch in Germany. He called it a monstrocellular sarcoma and believed that this tumor originates from blood vessel walls.

Hitselberger, Kernohan and Uihlein reported a large series of these tumors, and they called them giant cell fibrosarcomas. Dr. Rubinstein at Palo Alto holds out very strongly against sarcoma; he feels that this is a glioblastoma. There has been some EM study on these tumors that seem to favor the glioblastoma concept. As far as the behavior of these tumors is concerned, no matter how wild those giant cells look, I have the strong feeling that the little cells are the dangerous ones. The big ones are like dinosaurs. I do not think they grow very fast and they are left by the wayside. It is the little cells that will infiltrate and do the dirty job. Giant cells are important, however, in providing diagnostic criteria.

Dr. Ziegler: I do not have much to contribute to this. I certainly learned about this from reading Drs. Kernohan's and Uihlein's little monograph on sarcomas of the brain. It is recommended and interesting. As Dr. Kepes said, they include these lesions now as a variant of sarcomas. They characteristically occur in this decade of life, and, as you can see, they resemble metastatic tumors.

Clinically, possibly the only item of note here is the auditory hallucinations. This gives one the opportunity to bring to your attention here temporal lobe symptomatology. Lesions that stimulate the temporal lobe cause a variety of hallucinations. Most familiar among those are the olfactory hallucinations which are frequently unpleasant in nature. But as many of you know, hallucinations can be of a wide variety of other sorts. The loop of the optic radiation travels through the temporal lobe. When this is stimulated either by neoplasm or cicatrix, the patients will have sensations of vision. Those in the temporal lobe are not infrequently "formed" and rather complex visual hallucinations and usually are referred to the opposite visual field, which you would expect. They are quite distinct from psychotic visual hallucinations which are bizarre and carry with them the ordinary mental status of the psychotic patient. Hallucinations that occur in temporal lobe lesions are almost always recognized by the patient as being apart from reality or a sensation which is not real in some way.

Auditory hallucinations are not uncommon, either. The patients hear sounds that are loud, far away, peculiar, unusual. The environment as seen visually, instead of being a hallucinatory experience, may be altered. The classic terms that refer to this are "deja vu," which is "already seen," and "jamais vu" or "never seen." In other words, alteration of the sense of environment which frequently involves visual or auditory sensations or both.

Probably the most spectacular, famous data concerning this are from Dr. Wilder Penfield of the Montreal Neurological Institute, who had patients with seizures characterized by these complex hallucinatory experiences and known to have lesions in the temporal lobe. He stimulated the temporal lobe under local anesthesia in the operating room and reproduced a wide variety of hallucinatory experiences. Some were extremely complex with auditory, visual memory elements—whole experiences that the patients had had in the past. These were the massive data that gave us most of our insight into what we know about temporal lobe function in man. Temporal lobe function in man certainly has to do with integration of sensation into memories and affective patterns.

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Case # 4. Embryonal Carcinoma of the Pineal Region

Submitted by Professor Kurt Jellinger,
Neurologisches Institut, Vienna, Austria

This 13-year-old boy was exercising in the school gymnasium, four months before his death, when an iron bar fell on his head. One week later, he developed headaches, impaired vision and diplopia. Later, he vomited frequently and had paresthesias in his right arm. On admission, he was a normally developed, slightly obese boy with signs of increased intracranial pressure, choked discs, paralysis of the right sixth nerve and bilateral nystagmus, particularly at upward gaze. Ventriculogram showed a round filling defect in the posterior end of the third ventricle. The patient was operated on and a red gray round tumor was found involving the area of the quadrigeminal plate. A subtotal removal was followed by radiation. In spite of these measures, his condition deteriorated and he died, in coma, 60 days after the operation.

Dr. Kepes: This slide shows the tumor as it was found at the time of the autopsy (Fig. 1). As you see, in spite of partial removal by surgery, there was still a very large mass present. You see now a gray red tumor mass occupying the area of the pineal body. The clinicians knew they were dealing with a lesion of the pineal area, and the microscopic picture came as somewhat of a surprise.

We do not have any normal pineal tissue if you look at the slides. There is some calcification here which indicates that we are near the pineal because the pineal frequently has deposits of calcium. Next to this, we have the tumor which makes up the greatest portion of your slides. However, in the area of the calcification, a very important clue presents on most of your slides. Although we do not have any pineal tissue, we have what can be referred to as a so-called classical pinealoma, namely the double feature of the large irregularly arranged cells and the little lymphoid elements (Fig. 2). However, the main mass of the lesion looks quite different. It looks like a carcinoma and it is a carcinoma. There are glandular structures, columns of cells, mostly cuboidal and they form ducts and acini (Fig. 3).

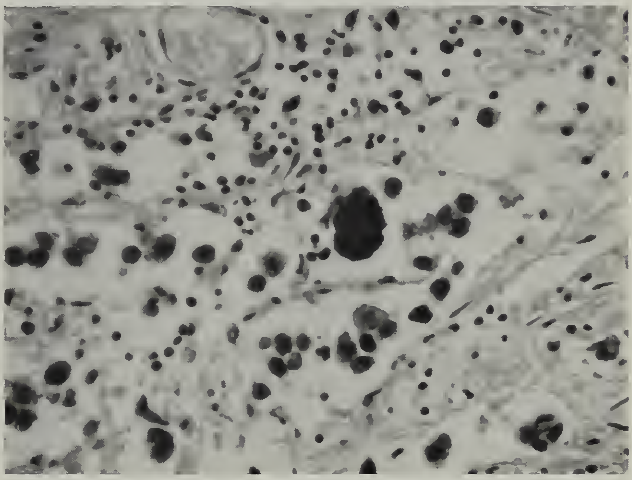
Fig. 2 "Seminoma-like" area in the tumor shows large round cells mixed with lymphocytes.

In the next slide, you can see it invade the neighboring stroma. This is a carcinoma, and I think it is an embryonal carcinoma because it looks exactly like embryonal carcinomas of the testicle or the ovary.

Diagnoses submitted by mail:

Embryonal carcinoma pineal region	4
Pinealoma, ependymal type	2
Pinealoma	4
Malignant papillary ependymoma	2
Teratogen tumor, teratoma	6

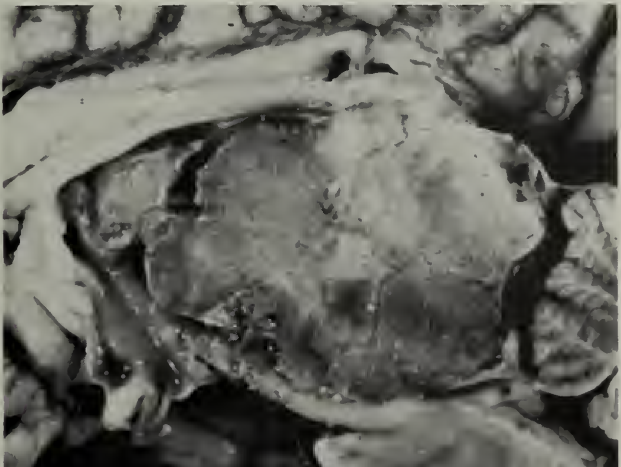
Fig. 1 A large tumor occupies the area of the pineal gland.

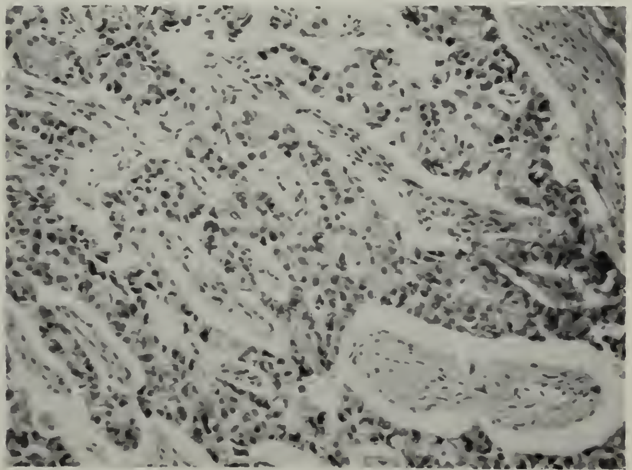
Fig. 3 Sheets of cuboidal cells and duct-like structures characterize this embryonal carcinoma of the pineal area.

Metastatic renal cell ca.	2
Carcinoma adenohypophysis	1

Diagnoses received included embryonal carcinoma of the pineal region; pinealoma, ependymal type (these are really not ependymal cells; they are carcinoma cells). Pinealoma is true in the broad sense of the word. Further included were malignant papillary ependymoma, teratogenous tumor or teratoma, metastatic renal cell carcinoma (it is good to be suspicious because you never know what renal cell carcinomas are up to) and, finally, carcinoma of the adenohypophysis, which also is a possibility.

It is now generally accepted that almost every pineal tumor that we used to call pinealoma has nothing to do with the pineal gland at all. There is such a thing as a true pineocytoma, a tumor of pineal parenchyma cells. This and its primitive form, the pineoblastoma, are uncommon. KU Medical Center has had only one of these cases in the last ten years. All the other tumors of the pineal region are really germinomas and the classification you learn about testicular tumors applies exactly to the tumors of the pineal region.

These are the same tumors you occasionally find in the mediastinum. Why is this so? The germinal tumors come from germ cells. The germ cells do not come from the testicle or the ovary. They originate from the yolk sac, and, at a certain stage of development, they migrate into the primitive gonads. Depending on whether they are male or female germ cells, they make the primitive gonad into an ovary or a testicle. Now every once in awhile, some germ cells apparently lose their way and they end up somewhere else, but that is usually somewhere in the midline of the body. Maybe it is in the area of the thymus or maybe in the intracranial area. When in the brain, usually it is in the area of the pineal body, but not exclusively because such lesions have been described in the pineal and outside the pineal particularly in the suprasellar areas. There are now some articles about intrasellar ectopic pinealomas, so called.

Once you have a tumor of this type it behaves like any germinoma. It can be a primitive germinoma with primitive germinal cells and lymphocytes (the lymphocytes represent a host reaction, they are not part of the tumor) or the cells may develop into epithelial structures. Then you have an embryonal carcinoma in the testes, ovary or in the pineal region.

The embryonal carcinoma in the testes or the ovary is something worse to have than a primitive germinoma. The reason may be that it does not have lymphocytes as host reaction that try to contain to some extent the tumor. In the brain, a pinealoma of the germ cell type is almost as bad as an embryonal carcinoma, but it may be a little more radio sensitive. Occasionally, the cells develop further and then you have the other types of tissues, such as cartilage or bone or fully formed glands or retina.

We just recently had a case of a more complex teratoma of the pineal region in a young man. It is quite possible that some of these cells go on to produce chorionic elements, and then we are faced with choriocarcinomas of the pineal region. In other words, the full spectrum may be encountered—germinoma, embryonal carcinoma, teratoma and choriocarcinoma and, sometimes, a mixture of these elements.

Dr. Ziegler: As Dr. Kepes said, these lesions tend to occur in the posterior portion of the midline supratentorial region in the region of the pineal and, therefore, one gets involvement clinically of the hypothalamus, the pituitary stalk and the midbrain. Dr. Nishiyama *et al* from the University of Michigan noted that in their 11 cases, most were in children. The oldest patient was 36 years old. In most cases, they were so-called pineal tumors or a variety of teratomas. They were all midline, either in the third ventricle or suprasellar or in the region of the pineal gland. Their prognosis is very poor, as mentioned. There was one patient living three and one half years postoperatively in their series; one lived one year; one patient lived for 12 years postoperatively. However, the rest died within five months of the operation.

Now, as one would expect clinically, the most striking findings would be those of a compression of the midbrain which are impaired upward gaze, impaired convergence, sometimes involvement of the medial rectus muscles and impaired pupillary reactions, all signs of midbrain involvement. This is frequently combined with diabetes insipidus because of the involvement of the pituitary stalk. As you know, in diabetes insipidus impairment of the pituitary stalk and the posterior pituitary produces failure of the antidiuretic hormone to be secreted and, therefore, massive amounts of excretion of water. Because the lesions are in the midline and tend to obstruct the aqueduct, papilledema and increased intracranial pressure occur quite early. An occasional case has a seizure. There also is an occasional case of precocious puberty; 15% of precocious puberty cases are due to lesions in this area.

The case in Michigan was one of choriocarcinoma of the pineal area that was secreting chorionic gonadotropin. They report one case in which the lesion had metastasized extracranially to the lungs. They point out that surgery is disheartening and few patients do well when any attempt is made to remove the lesion and suggest that proper procedure is merely to decompress and biopsy followed by radiation. Dr. Dayan and associates in their series in 1966 reported 104 cases of lesions in this area and noted marked preponderance in males. They again noted that diabetes insipidus is the mark of the early onset or manifestation of these lesions. They pointed out something of interest, which is that diabetes insipidus can later disappear and speculate why this might be. It may be due to actual hypothalamic destruction of anterior pituitary function because presence of diabetes insipidus is dependent on destruction of the stalk with preservation of the connection between the posterior and anterior pituitary. They point out another feature of these lesions, which is seen not uncommonly with these midline lesions of the brain, and that is the early occurrence of mental disturbances of all kinds—somewhat impaired consciousness, dullness, nonspecific disturbances in thinking and states of consciousness, occasionally psychotic manifestations.

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Case # 5. Subacute Spongy Encephalopathy (Creutzfeldt-Jakob Disease)

Brain submitted by Gerald Palmer, M.D.,
St. John's Hospital, Salina, Kan.

This is the case of a 49-year-old white woman whose chief complaint was "loss of memory and personality change in the last six months."

The patient had been a postal clerk. Three months before her admission, she was advised to give up that job because of continuous nervousness and the feeling that everything was "closing in." She became increasingly demented. A month prior to this admission, she hallucinated at home one evening and was admitted to the Salina Hospital where she had an initial workup without definitive diagnosis.

She was transferred to KUMC for further evaluation. On admission, she did not respond to questioning and made "rather inappropriate gestures." The head was normocephalic. She had some arteriolar narrowing of the fundi and no papilledema. Cranial nerves appeared intact except that speech could not be evaluated. There was rigidity in both upper and lower extremities. There were occasional choreiform movements in the left hand. She was unable to maintain her balance and tended to fall to the right.

General examination and laboratory values were within normal limits. Spinal fluid showed no cells, 66 mg% glucose, 60 mg% protein. Colloidal gold curve was flat. Serology was nonreactive. EEG showed severe generalized slow spike and slow wave abnormality. Sonogram showed no shift. Pneumoencephalogram showed evidence of cortical atrophy. A brain biopsy was performed. The patient was discharged for supportive care. The slides are from the autopsy specimen. The brain biopsy at Kansas University showed similar changes.

Dr. Ziegler: This EEG slide shows an extremely striking rhythmic abnormality at one second intervals (a normal interval for an adult EEG is ten second of these waves). You can see the very slow waves appearing very rhythmically. Down across the frontal areas, we see very rhythmic high voltage with sharp waves (Fig. 1). These rhythmic complexes, which are extremely abnormal, are called slow spikes. The complete records on this patient contain this kind of abnormality almost continually and this is what we wanted you to see since we will discuss it later. She did not have any seizures. This abnormality was not related clinically to seizure phenomena.

Dr. Kepes: This slide shows the kind of change we found in the cortical biopsy. The reason for biopsying these patients is that we have a tool in trying to diagnose some of these demented patients while they are alive by cortical biopsies. This makes it possible for the family to make plans accordingly, saves a lot of uncertainty and makes it easier to handle these patients. What we saw in the slide is the cortex with neurons, which do not show any specific changes except some lipofuscin pigment in the cytoplasm. The most striking feature of this biopsy is the presence of numerous vacuoles in the cortex, and

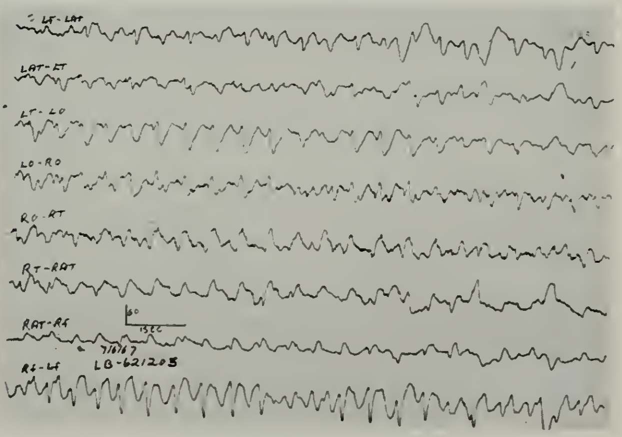

Fig. 1 EEG of patient shows stereotyped, rhythmically-occurring, high voltage, slow spikes characteristic of advanced spongyform encephalopathy, which is thought by many to be indistinguishable from Creutzfeldt-Jakob disease.

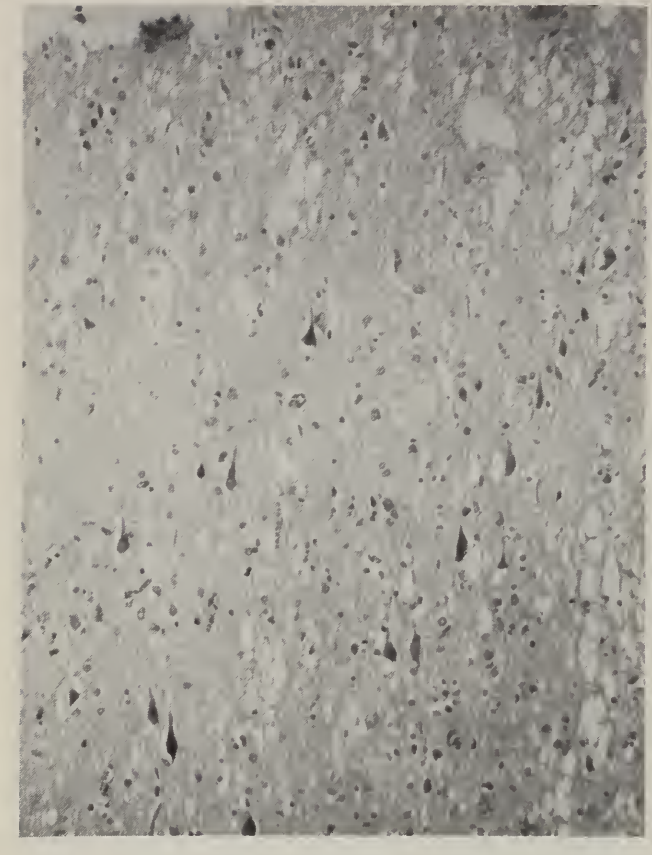

Fig. 2 The cerebral cortex shows numerous vacuoles creating a "spongy" appearance.

some are seen between the nerve cells and some are quite close to the nerve cells (Fig. 2).

This next slide shows it somewhat better. It seems that the vacuoles impinge on the nerve cells, in some areas anyway, and indent some of the nerve cells (Fig. 3). It is not quite indifferent to the nerve cells that these vacuoles are present here. If you try to stain the substance that might be present in the vacuoles, the stains will all be negative because it is only water and electrolytes. There is no lipid substance here. Occasionally, a very little amount of glycogen possibly could be found. So, we have a spongy state in the cortex involving the nerve cells, also.

Another slide shows nerve cells caught by pressures from vacuoles on both sides, and here is one that really becomes quite atrophic due to this expanding vacuole. It thus seems that these spongy changes are actually damaging to nerve cells. Here is a glial cell, and you can see that the vacuoles are a part of the cytoplasm of the glial cell. Here is another area where vacuoles start to develop inside the nerve cell. Here are two vacuoles developing inside the cytoplasm of a nerve cell.

Next is the list of diagnoses.

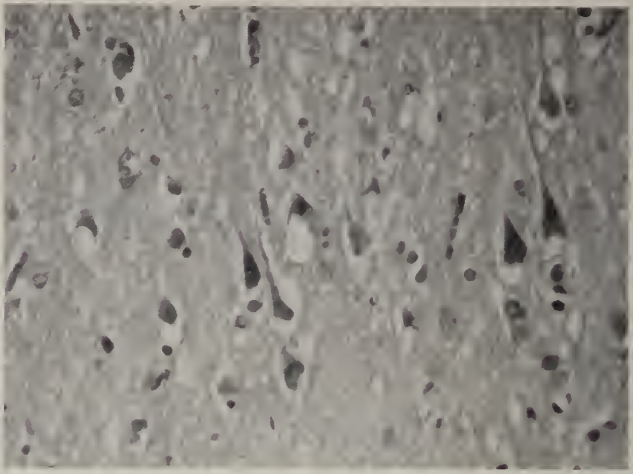

Fig. 3 It appears that some vacuoles impinge on nerve cells and compress them.

Diagnoses submitted by mail:

Jakob-Creutzfeldt disease (presenile spongy dystrophy)	10
Alzheimer's disease	6
Huntington's chorea	2
???	4
Cortical degeneration?	1

Diagnoses submitted included Jakob-Creutzfeldt disease or spongy dystrophy. Some called it Alzheimer's disease—I guess mostly based on the history. Huntington's chorea was mentioned because those patients also are demented and this patient did have some choreiform movements. Question marks were submitted by four people, an honest appraisal. "Cortical degeneration" also was submitted.

Very briefly, how can the pathologist help in diagnosing presenile dementias? There is something quite positive about Alzheimer's disease. You can find so-called senile plaques and you do not even have to do a silver impregnation. The most important thing is to do a Congo Red stain, and senile plaques and neurofibrillary degeneration are positive and birefringent on this stain. Pick's atrophy is a disease that involves a few lobes rather than the whole brain and usually has a very striking degree of atrophy. One is able to find argyrophilic globules inside the nerve cells.

This third type of dementia, Jakob-Creutzfeldt disease, is less common than either Alzheimer's or Pick's and is subacute rather than chronic. Clinically, it is marching more rapidly than Alzheimer or Pick's. The brain does not become too atrophic, interestingly; there is some atrophy, but never to the degree seen in Alzheimer's or Pick's. Two possible reasons are (1) it is happening so fast, perhaps there is not enough time for atrophy and (2) there are these spongy vacuoles. It seems that whatever you lose in nerve cells is possibly made up by these water containing vacuoles and, therefore, the external view of the brain does not change too much.

In the original cases of Creutzfeldt and Jakob (Creutzfeldt reported one case and Jakob five, Creutzfeldt worked in Jakob's institute), there is no mention of spongy changes, but just a loss of neurons and astrocytic proliferation. Later, Heidenhain reported some cases with spongy changes, usually associated with cortical blindness. Nevin and Jones in the early 60s reported more of these spongy changes in the cortex but they felt that this was a vascular lesion.

Well, now we are apparently in the stage of integrating these ideas, and more and more people feel that all these entities are really one and the same disease. When we see extensive spongy changes in the cortex of people who have dementia, we suspect a form of Creutzfeldt-Jakob disease. If you do not have the spongy changes, then qualitative diagnosis is difficult. From the cortical biopsy, all you can then see is that there is some atrophy and gliosis, but you cannot say it is Creutzfeldt-Jakob's disease. When you see these spongy changes, you are one big step ahead and you can suggest that this is what the patient has. If you have a cortical biopsy, the safest thing to say is "If the area I am viewing now is representative, the lesion is a spongy encephalopathy, compatible with Creutzfeldt's disease."

Dr. Ziegler: Clinically, this illness is much more acute than Alzheimer's disease and it may run its course as it did in this lady in a year from onset to the time of death. It has been known since the entity had first been described that it is clinically different. There have been different clinical varieties of this illness. They all consist of different degrees of dementia and different kinds of abnormalities of the motor system—different in the sense from Alzheimer's disease and Pick's disease, which only uncommonly have striking involvement of the motor apparatus. Seizures are not uncommon in Alzheimer's disease, but myoclonic seizures are particularly common in Creutzfeldt-Jakob's disease. Involvement of the basal ganglia giving various kinds of rigidity and abnormal postures are extremely common. Actually, a striatal form has been described. Cerebellar disturbances have been described fairly early in the disease recently, which, again, are uncommon in Alzheimer's disease. The neurons in the spinal cord are involved sometimes and the patients develop muscle atrophy, so that all varieties of involvements of the motor apparatus are particularly common in Creutzfeldt-Jakob's disease.

The reason we suspected it in this patient was the rapid onset of the severe motor involvement to a decorticate posture, which is rather characteristic for this illness. It also should be said that there are cases on record with longer duration, proven cases of this disease in which the illness has lasted for some years. However, this is uncommon.

Dr. Nevin, who has had a great interest in this for several years, has an interesting graph showing a variety of courses whereby some patients have a mental deterioration coming on early and lasting for a long time and very little motor involvement. Some patients have motor involvement quite early and mental involvement only in the later stages of the disease. There is nothing specific about the mental disturbances. Like all organizing brain diseases, it can begin with judgment problems, emotional problems and, then, only gradually does it become apparent that the patient has severe organic mental disturbance with a memory impairment and, then, terminally impairment in consciousness.

So, there are several clinical varieties of the illness. Dr. Kepes mentioned Heidenhain's contribution and his cases had blindness fairly early due to involvement in the occipital lobes. This is another clinical variety. Dr. Nevin feels very strongly that there are two kinds of disease processes here. According to him, it is important to differentiate subacute spongiform encephalopathy from Jakob-Creutzfeldt disease. He feels that patients with spongiform encephalopathy tend to be older, but this lady was certainly not old and was from this group of patients. Patients with spongiform encephalopathy tend to have a particular kind of severe EEG abnormality fairly early in their course. He uses this as one of the major criteria for his subvariety of this illness.

This brings us to a matter reported in *Science* some time ago, a case of Creutzfeldt-Jakob disease in which the illness was transmitted to a chimpanzee. This presumably means that this illness, at least in some cases, is due to a transmissible agent. The background for this, as many of you know, is that in recent years several illnesses which have been thought to be of degenerative nature of unknown etiology, etc. have turned out to be due to viral agents. Probably the most publicized was this curious disease in New Guinea called Kuru, which afflicted families and young adults and always ended fatally after a prolonged course with cerebellar and basal ganglia involvement.

It occurred in families, and Dr. Gibbs and his group from the National Institutes of Health, after suspecting this might be due to a transmissible agent, did succeed in transmitting this disease to chimpanzees through several passages. The actual agent, I do not believe, has been seen or cultured, but it is obviously due to a transmissible agent. Subacute encephalitis in children and adolescents is almost definitely known now to be due to the measles virus. That is why it is particularly interesting that this disease also had been transmitted to an experimental animal. Dr. Fred Plum told me a few weeks ago that they have on record a case of their own in which they have succeeded in transmitting a disease to an experimental animal from biopsy material.

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Case # 6. Metastatic Renal Cell Carcinoma ('Sarcoma-Like' Variant)

Contributed by Howard Fink, M.D., Kansas City,
Mo., Veterans Administration Hospital

This patient is a 56-year-old white man with a three-weeks history of headaches and two-weeks history of weakness on the left side. He also complained of difficulty with his vision. Examination showed early papilledema, left homonymous hemianopsia, left hemiparesis and absence of left abdominal reflexes. Brain scan was positive in the right parietotemporal region. Arteriography showed a mass near the midline in the right occipital lobe, suggesting the possibility of a meningioma. At operation, a multilobulated, firm grayish red mass was found within the right occipital lobe. Sections are from this tumor.

Dr. Kepes: In this slide, this is not a very cellular tumor mass. There are some large blood vessels and there is a portion of compressed, but apparently not infiltrated, brain tissue. This is a trichrome stain to show what you all realize, I am quite sure, that many areas of this tumor are quite fibrous with masses of collagen and only a few cells in between. Naturally, to make a diagnosis, we had to focus on the cells and not the collagen. These are almost like fibroblasts and criss-cross in many directions, and there is a lot of collagen deposited in between (Fig. 1).

This is a case from our Kansas City VA Hospital, and Dr. Fink was in the nonenviable position to check this out. He had a lot of headaches. He showed this slide to me and it looks like a fibroma, really. It has a lot of spindle-shaped cells and a lot of collagen (Fig. 1). Here it looks like a meningioma. It has as many blood vessels, also, and that suggested the possibility of an angioblastic tumor, angioblastic meningioma or possibly an angioblastoma like the one you find in the cerebellum. However, there were some features about this lesion that made it look more malignant than that.

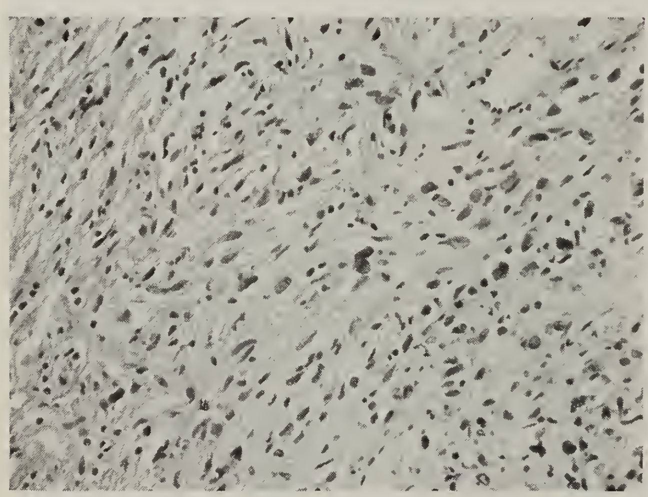

Fig. 1 This tumor has many spindle-shaped cells with collagen fibers deposited among them.

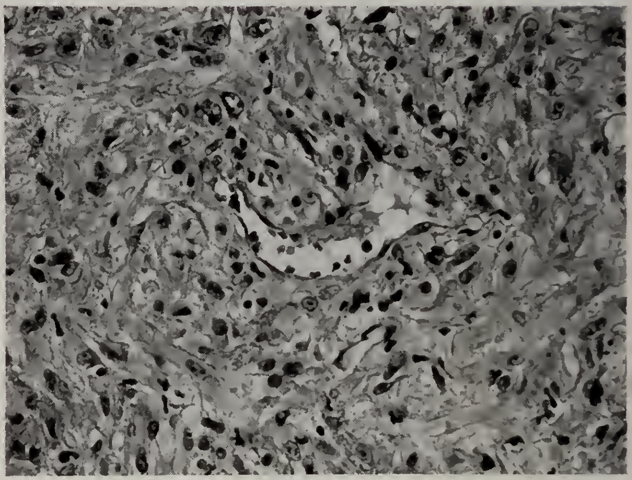

Fig. 2 Around blood vessels, tumor cells are plump with light staining, slightly foamy cytoplasm.

This is an area which is quite vascular, and capillaries and red blood cells are suggestive of an angioblastic tumor. Also, as in cerebellar angioblastomas, you find a few clear cells in the neighborhood of the capillaries (Fig. 2), but we are not in the cerebellum and this is a little bit wilder lesion than you would find in angioblastoma.

How wild? Well, there are mitotic figures in it here and there, and there is pleomorphism of these spindle-shaped fibroblast-looking cells. Also, there are large nucleoli present which look very suspicious (Fig. 3).

Next is another mitotic figure (many for an

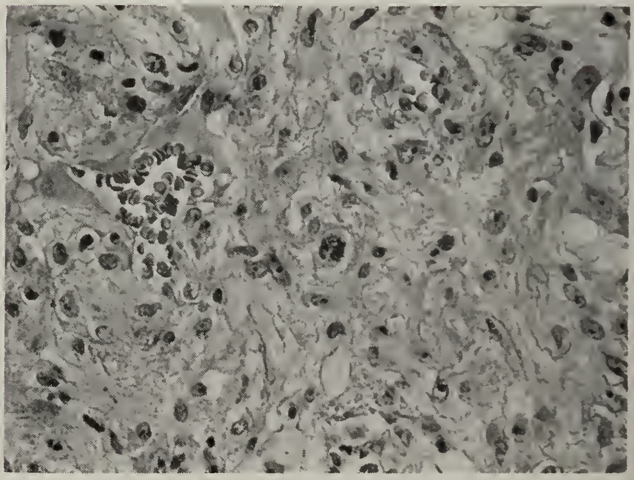

Fig. 3 Large nucleoli and a mitotic figure are seen in this field.

angioblastoma) and too much pleomorphism. Even in the middle of the fibrosed area, there are binucleated cells that are atypical. Lowering the condensor a little bit, if you will strain your imagination you can see that some of these clear cells possibly form clusters rather than just being scattered around, and here you find them between blood vessels, a cluster of clear cells.

This is a reticulin stain that shows a lot of reticulin fibers all over the place, but occasional foci are left out and are surrounded rather than traversed by these reticulin fibers. Whenever you see something like this, the old suspicion starts haunting you and you think now about the possibility of this being a metastatic tumor. One metastatic tumor that can fool us like this is a renal cell carcinoma. Dr. Fink thought of this and I thought of this. Although up to this time there was no suspicion whatsoever that the patient had anything else outside of the brain, we suggested that the clinicians do an IVP. This resulted in the finding of a huge mass in the upper pole of the right kidney. It was subsequently removed.

This is the section from the kidney which shows a clear cell carcinoma, or, if you wish, renal cell carcinoma (Fig. 4). It is not exactly like the lesion in the brain, but, even in this area, you find some strains of collagen and a few more strains of collagen in this area, where this lesion obviously becomes quite similar, if not identical, to the tumor in the brain.

Here is another area of the kidney lesion in which everything became fibrosed with only an occasional malignant cell sticking out to let you know it is not a fibroma of the kidney, but a renal cell carcinoma. These are old trouble makers—renal cell carcinomas, in particular, when they begin to look like sarcomas, the so-called sarcoma-like variety. Why do they do it? The reason is very simple. Renal epithelium is mesodermal in origin. The mesoderm, of course, is the precursor of the mesenchyme, and you cannot really blame renal tissue for behaving like mesenchymal tissue occasionally.

Diagnoses submitted by mail:

Meningioma, fibrous	8
Angiosarcoma	2
Perithelioma	2
Astrocytoma	2
Meningeal sarcoma	2
Metastatic mesenchymal tumor	2

We received diagnoses of fibrous meningioma, angiosarcoma, epithelioma, astrocytoma and fibrosarcoma. There is one for metastatic mesenchymal tumor and, in a broad sense, you can accept the kidney as a mesenchymal organ (it is better to say mesodermal). In this respect, this is a correct diagnosis. This is a difficult entity to diagnose histologically, but as Ackerman said of melanomas, you should have a record playing in your head constantly repeating the same sentence, "Couldn't this be a metastatic renal cell carcinoma?"

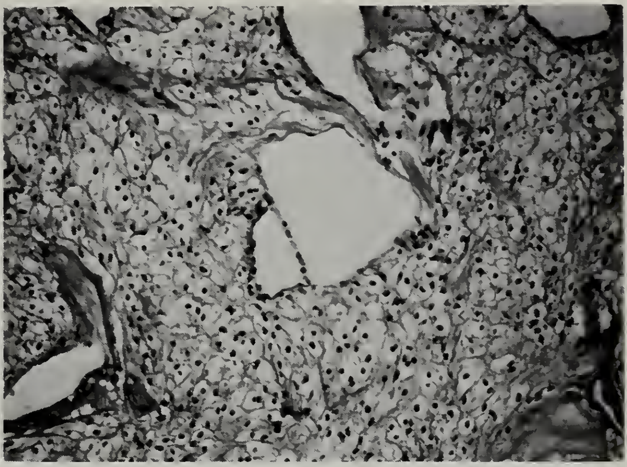

Fig. 4 The primary tumor in the kidney reveals the classical "plant cell" appearance of a renal cell carcinoma.

As far as the follow-up of this patient is concerned, he developed some more interesting problems. He developed an intussusception of the small intestine. He had to be operated on and had polypoid metastases in the mucosa pulling down the rest of the bowel creating intestinal obstruction. This was resected. Then he developed bone metastases and needed a chordotomy to relieve the pain. This was performed with pretty good results, but, unfortunately, the patient died last week and was autopsied at the VA Hospital. So, this is a case of a renal cell carcinoma with widespread metastases, and the cerebral metastasis was the first manifestation of the disease.

Dr. Ziegler: This is a familiar problem and I do not have any comments to make, except to point up a few things about metastatic tumors of the brain. In the first place, it is extremely interesting that in some large tumors of the brain, particularly glioblastomas and metastatic tumors, the history is frequently extremely brief. I think there are many speculations as to why this should be and, yet, we do not exactly know whether the lesion reaches a critical mass, at which point decompensation of normal brain begins and signs occur or whether edema occurs at a certain time. These are two possibilities. Certainly, both metastatic lesions and primary glioblastomas are surrounded by edema of the brain. I think that actually the matter of why these particular brain lesions are surrounded by edema is not exactly clear to me. I suppose the best possibility would be that the rapidity of a growth of the lesions determines the presence of cerebral edema. Do you have any opinion about that, John?

Dr. Kepes: Yes. Partly, the rapidity of the growth and partly the degree of necrosis in the more malignant tumors liberating some metabolites have something to do with edema. Dr. Mike Spearl at the Mayo Clinic made this experiment by implanting psillium seeds in the brain. These are seeds that expand after becoming wet. He did two types of experiments. In the first, he put the seeds in water to let them expand to full size and then placed them into the brain. In the second, he inserted the seeds in the dry state into the brain and they expanded quickly in the brain. Now, the final size of the mass was the same in both animals, whether he expanded them before or after putting them into the brain. But those animals which received the full grown mass in the brain did not get edema, and those animals which had the mass of seeds actually expanding within the brain were the ones who got massive edema. So, edema is probably related to the rate of expansion. In a way, it is really disappointing. One would like to praise Mother Nature, but she is really working against us. The more expansion there is in the brain by tumor, the less edema ought to develop as a compensation. It does not work this way. The more expansion there is in the brain, the more edema develops on top of it to make matters worse.

Dr. Ziegler: Maybe Mother Nature is not in favor of man. The renal tumors not infrequently form single metastases, so it is even more important to carefully consider surgery in these lesions. Also, of course, there have been cures of patients with metastatic renal tumors. There is certainly nothing specific about this man's course or findings. The combination of hemiparesis and left homonymous hemianopsia are all nonspecific findings of a hemispheric tumor and so are the laboratory tests. I think there will be no other further comments on that.

Dr. Kepes: Any questions or comments?

Dante G. Scarpelli, M.D.:[*] John, I think this really demonstrates that we are not very good pathologists. I think had we known that there was a renal lesion, there would not have been much of a problem. However, as you pointed out so nicely, most renal cell carcinomas do have associated neoplastic transformation of connective tissue, and they are nor really pure renal cell carcinomas but are tumors of a mesodermal origin with a predominant epithelial element. We have to be very careful. I think a series has been studied very carefully at the University of Montreal on spontaneous and experimental tumors of the kidney in animals and man shows very clearly that this is the case. Had we been sharp, we would have interpreted the connective tissue changes much more carefully.

Dr. Kepes: Of course, I think that the epithelial cells of the kidney themselves can change into connective tissue cells because they are really mesodermal cells, even the epithelium.

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[*] Chairman, Pathology Department, Kansas University Medical Center.

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Case # 7. Medulloblastoma With Ganglionic Differentiation

A 12-year-old Oriental boy (born in Taiwan) was in his usual state of good health until two months prior to admission when he developed ataxic gait and stabbing occipital pains, which occurred five to eight times daily. He also vomited repeatedly, sometimes three times per day without preceding nausea.

Examination showed bilateral papilledema and horizontal nystagmus. His gait was broad and he could not walk tandem. Finger-to-nose and heel-to-knee tests were normal. Reflexes were normal. Brain scan suggested a posterior fossa tumor.

The patient was operated on and a large tumor was removed from the cerebellar vermis.

Dr. Kepes: Well, what do you expect in a young boy with a tumor in the cerebellar vermis? You expect one of three things: (1) a medulloblastoma, (2) an astrocytoma or, possibly, (3) an ependymoma of the fourth ventricle growing into the vermis. Some areas of the tumor resemble a medulloblastoma. They are small dark cells that are too closely packed to be an astrocytoma. In addition to little dark cells, you see larger pink-staining cells scattered in between. This higher power slide shows you that the little dark cells form rosettes or pseudorosettes.

Next is a high-power view to show the carrot-shaped nuclei (pointed on one end) and the way they surround a central clearing. This usually is seen in neurogenic tumors, including those of the peripheral nervous system. These are called pseudorosettes because they do not have a central cavity. If they did have, we would call them true rosettes. That would make it a medulloblastoma (Fig. 1). In addition to these structures, there are big ganglion cells and there are transitional cells in between (Fig. 2). The questions that always come up with regard to brain tumors are "What are these ganglion cells? By any chance, could these be remaining cells from the normal tissue?" Not in the cerebellum; these are not Purkinje cells and there are no other big cells of this type in the cerebellum anywhere.

This is a Nissl stain to show that these cells, indeed, have Nissl granules in the cytoplasm and they deserve the term, ganglion cell. On a Bodian impregnation, you can see nerve fibrils emanating not only from the very large cells but, also, from the smaller ones, creating a network of neoplastic nerve fibrils. In one area, there is something that you usually see in glioblastomas: Here we have a linear type of necrosis, pseudopalisading of the cells around it.

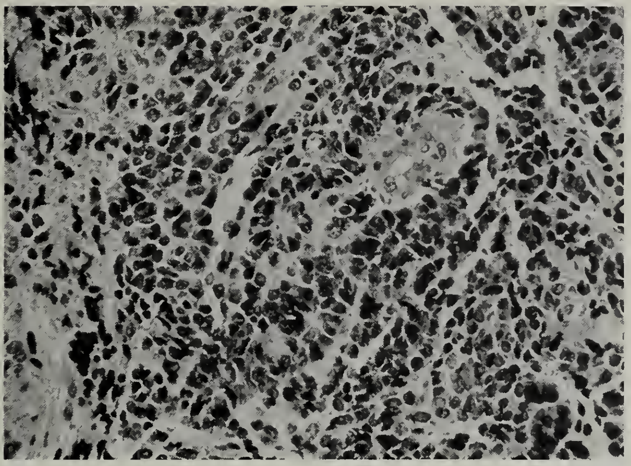

Fig. 1 This slide shows a cellular tumor with small, dark, sometimes carrot-shaped nuclei.

Diagnoses submitted by mail:

Medulloblastoma	12
Cerebellar "glioblastoma"	2
Gangliocytoma malignum	2
Astrocytoma	4
Neuroblastoma	2

This lesion was called a medulloblastoma by some and cerebellar glioblastoma by others. I am sure the latter were impressed by the presence of necrosis; Gangliocytoma malignum because of the ganglion cells. Astrocytoma? Well, I do not think that an astrocytoma of the cerebellum looks like this. This is much too cellular for an astrocytoma. It also had ganglion cells which you do not see in an astrocytoma. Neuroblastoma would be difficult to reject because, essentially, this a form of neuroblastoma. All of you know a lot about medulloblastomas. Whether you believe it or not, however, there is presently a very lively argument going on in neuropathology! The question has been raised and quite strongly argued by some people, particularly Gullotta in Germany, that medulloblastomas are mesenchymal tumors that they are really sarcomas. They emphasize the presence of reticulin fibers, particularly when the tumor grows into the meninges. As far as I am concerned, I would not reject the possibility of neuroectodermal cells forming reticulin. To me, this is acceptable because the Schwann cell of the peripheral nerve is coming from the neural crest and it is known to form reticulin.

What we are dealing with probably is a cell of the external granular layer of the cerebellum that is bipotential. In some of these tumors, you find areas of spongioblasts and astrocytes all the way to glioblastoma. In others, you find a development of the neuronal series with ganglion cells. When it comes to this degree of ganglionic differentiation, however, would it not be better to call it a neuroblastoma? Possibly so, but since it is in the cerebellar vermis and in a young boy and since we know the fact that these tumors frequently produce ganglion cells, it is probably best to call it a medulloblastoma with ganglionic differentation. This is what we called it.

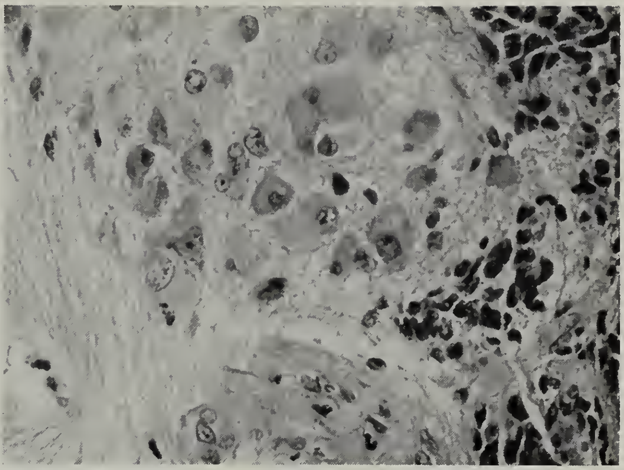

Fig. 2 Small, dark cells resembling those of a medulloblastoma and clusters of large ganglion cells are seen together in this area.

The next question is, "Is this tumor any better than the usual medulloblastoma?" Maybe it is. Maybe the presence of ganglion cells is good news for us. In the peripheral neuroblastomas, there is no question but that some of them can spontaneously mature into gangliocytomas, and this may become a self-healing process. As far as I know, this has not been described in the brain as yet, namely that a medulloblastoma should completely convert to ganglion cells.

Dr. Ziegler: I'll comment about two aspects of this problem. One is the rather basic discussion of diagnosis of the localization of cerebellar disturbances in the differential diagnosis. The other is the current status of chemotherapy of brain tumors, which might be of some interest to you and which I have taken from a review in the *Journal of Neurosurgery* published last year.

This is a child who had the onset of truncal ataxia (truncal ataxia is the manifestation of vermis disease of the cerebellum). By truncal ataxia, we mean inability to maintain normal postural adjustments of the trunk muscles. This is manifested by gait disturbance and, in its severe degree, by disturbances even in sitting. The individual tends to fall backward or to the side in any normal postural maneuver. It can be brought out by several maneuvers. For example, having the individual walk tandem or crawl on all fours would bring out the absence of normal postural adjustments. In contrast to this, the cerebellar hemispheres have to do with coordination of muscular movements of the limbs. The normal coordination of contraction of the agonist and antagonist muscles of the limbs is accomplished only with the aid of normal cerebellar hemispheres. When one has cerebellar hemisphere disease, he will have all of the common signs of limb ataxia, finger-to-nose incoordination, dysmetria and impaired successive movements in arms and legs.

Clinically, this is about as far as we can go. It seems quite difficult to decide when an individual has ataxia of the legs or when he has an additional truncal ataxia, also, because both will affect the gait. Usually, however, one can tell that an individual has primarily limb ataxia which points to the hemispheres or truncal ataxia which points to the vermis of the cerebellum being involved. When the vermis of the cerebellum is involved acutely, there are really only about three conditions that can cause this, in terms of differential diagnosis. In a child, unfortunately, one of the common things is a malignant tumor of the vermis of the cerebellum. The other common thing that can come on acutely is encephalitis that has a predilection for the cerebellum in children. This cerebellar encephalitis has been found to be due to several viruses: polio virus, Coxsackie virus and, I believe, Echoviruses. Also, I believe others have actually been identified as the cause.

Now, this produces in children abrupt onset of ataxia, usually without increased intracranial pressure; so if increased intracranial pressure is present, it makes this diagnosis much less likely. The other condition that commonly produces abrupt onset of ataxia is demyelinating disease which, of course, for all intent and purposes is multiple sclerosis. This can come on in children, also and, again, without any increase in intracranial pressure.

Dr. Kepes suggested that I review with you for a minute or two the status of chemotherapy of brain tumor. This is from the review by Drs. Wilson and Hoshino in the *Journal of Neurosurgery* last year. There was another review of this subject in the monographs on *Newer Developments in Neurology*, but the report in *Neurosurgery* is more recent. Drs. Wilson and Hoshino begin by pointing out the difficulty in obtaining evaluation of therapeutic agents in gliomas of the brain, about which they are particularly concerned for three reasons: first, there is no suitable animal model; second, there is a lack of drug selection for individual tumors; and third, there is a lack of rapid system for a precise measurement of tumor response. That is because these tumors tend to grow so rapidly that one cannot try one drug and then another to compare their evaluation.

The agents that have shown some promise are the following:

1,3 bis (2-chloroethyl)-1-nitrosourea (BCNU) compound is highly soluble in lipids and appears simultaneously in the blood stream after intravenous or oral administration. It has been effective in tumors outside the nervous system. There is only a single clinical trial for brain tumors which has given rather disappointing results.

Also, there is methotrexate, which has been given intra-arterially, as many of you know, for brain tumors. It is an antimetabolite which is largely excluded from the normal central nervous system by blood-brain barrier mechanisms so that it has been tried chiefly intrathecally. It also blocks reduction of folic acid, so that when methotrexate is given, it has to be given with citrovorum factor to eliminate this side effect. Continuous intra-arterial infusion of methotrexate with citrovorum factor has been tried. There is one report with some indication of effectiveness, so this is one of the drugs that is under consideration for a possible therapeutic agent.

BUDR or bromouridine is a halogenated pyrimidine compound, and it is a pyrimidine analogue incorporated into cellular DNA as a substitute for thymidine. BUDR is synergistic with radiation, in that after incorporation of BUDR, cultured cells become much more radio-sensitive so it has been promising for this reason. It also is a comparatively nontoxic preparation. More than 80% of the drug is halogenated by the liver within an hour after its administration. A detailed report is given in the review by Sano *et al.* It includes a follow-up of malignant hemispheric gliomas which is really rather impressive. They administered BUDR with intracarotid infusion in combination with methotrexate. The findings showed that five patients with highly malignant gliomas survived for two years or longer, which is certainly impressive in this group of tumors. There was objective improvement. They also noted several patients who had shorter periods of survival. So, this is another one of the agents that is potentially quite useful.

The other agent which has shown some promise, particularly in medulloblastoma, is Vincristine. Vincristine apparently is effective in some recurrent medulloblastomas. The authors of the review reported in 1967 six patients with considerable improvement. They also have used methotrexate intrathecally in medulloblastomas. In some cases, the medulloblastomas respond to Vincristine and in others to methotrexate.

So these three agents—BUDR, Vincristine and Methotrexate—are the most promising. We do not know now the final place of these agents and how many of gliomas and, particularly, medulloblastomas will respond to any of these specific agents.

Dr. Kepes: Any questions for Dr. Ziegler or me?

Mark Ost, M.D.[*] I wondered if there was any mention made of 5-Fluorouracil?

Dr. Ziegler: Yes. The comment is this. With 5-Fluorouracil, 97 patients harboring metastatic brain tumors were reported to have near miraculous results, but this has not received any subsequent confirmation. Although useful as treatment outside of the nervous system, 5-FU has not been given adequate clinical trial in treatment of brain tumors. Have you had any experience with it?

Dr. Ost: I have had three patients treated with it, but I do not know that it really made any difference.

Dr. Kepes: Of course, the old standby, radiation, is still used, and there are some very good results on record. Medulloblastoma sounds like a terrible tumor. In many respects it still is, but there is now a 30% five-year survival in patients in which medulloblastomas are radiated. Also, there is a short series by Hope-Stone who used total nervous system irradiation, keeping an eye on the possibility of seeding along the spinal axis. In the total body radiation group, 75% of the patients had a five-year survival and 50% had a ten-year survival.

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[*] Baptist Memorial Hospital, Kansas City, Mo.

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Case # 8. Late Life Neuronal Lipidosis (Kufs Disease)

Submitted by Guido Coggi, M.D., Milan, Italy

This case was submitted by Dr. Guido Coggi from Milan, Italy while he was working here. He brought the slides with him. The patient was a 50-year-old woman who had a normal mental and physical development and was in a good state of health until the age of 42. She was a nun and a nurse in a hospital. At the age of 42, a slight but progressive change in personality was observed. She started to be careless of her body and did not perform her job with the usual attention. At the age of 44, she became unable to perform even simple tasks. She spent all day sitting in a chair, apparently happy. She was quiet and smiled at everybody. During the following years, the mental faculties degenerated constantly until she reached a stage of pure vegetative life.

At the age of 48, she had her first epileptic seizure. These became more and more frequent. No visual disorder was found. She died quietly at age 50. General autopsy was negative. The brain showed a slight decrease in size and weight with gross atrophy of frontal, occipital and cerebellar cortex.

Dr. Kepes: The first slide on this patient is a PAS stained slide (Fig. 1). It is the same stain as in your collections. The first thing that comes to your mind is that there is something stored in these nerve cells. This involves just about every nerve cell in the whole field. Also, it involves the basal ganglia as well, as we have seen in the autopsy. However, this is a piece of cortex and these are the nerve cells that contain PAS positive material. This is present to a great extent and causes almost a ballooning of the cell, as though the cell had a big belly. Now, lipofuscin is also PAS positive. You find it in people who are over 25 years of age. Most of us in this room have a little lipofuscin in the cortical neurons, but to have it to this degree, at which it replaces the whole perikaryon and leaves nothing else to really function, would be abnormal.

It is strange that the cells should survive at all, but they do in these forms of the disease. If you do a silver impregnation of Bodian and wonder what happened to the nerve fibrils, you will find that they are crowded out to the periphery of the cell (Fig. 2). If you look at other areas of this brain, you will

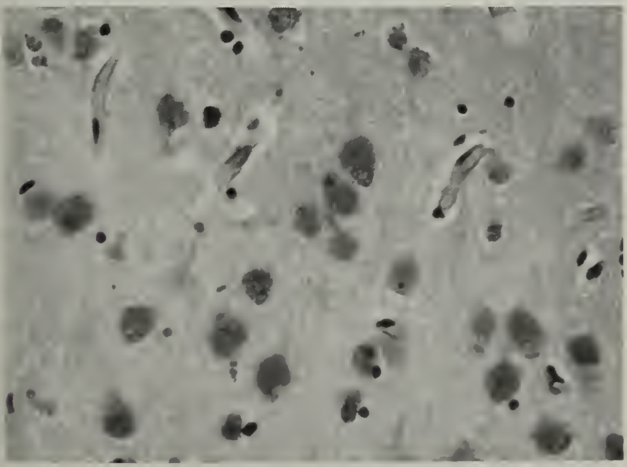

Fig. 1 Masses of PAS positive granular material are stored in every ganglion cell of the cortex in this area.

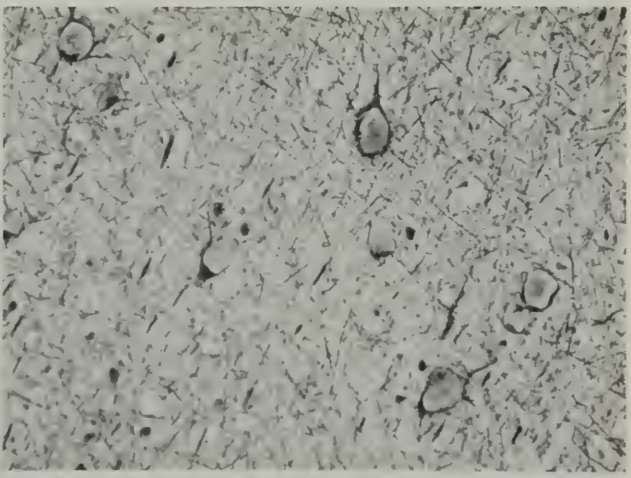

Fig. 2 On Bodian impregnation, the stored material (unstained) pushes the neurofibrils to the periphery of the cells.

find certain clusters of this PAS positive material, which apparently is not inside nerve cells. Where is it then? It is in the processes. If you did a Bodian on that, you would find that there are nerve fibers going around it. These deposits are in the dendrites and in the axons. Here, for example, we see the cerebellar cortex. In the molecular layer, you find these deposits. They are part of the dendrites.

This patient obviously does not have Tay-Sachs disease because, by definition, that is an infantile disease. This patient has one of the late forms of neuronal lipidoses. Being in an adult, it falls into the category of Kufs disease. Kufs described this in adults in 1925. If you look into the literature, you will find a lot of names about Tay-Sachs disease and Bielschowsky-Jansky disease for the older infants, Vogt-Spielmeyer for the juveniles and Kufs for the adults. The present way of thinking is that there is Tay-Sachs disease and then the others.

This electron microscopic picture we took in a similar case shows the nucleus of this cell and here are these irregular deposits. It is somewhat similar to lipofuscin, which you see in older people, but it has some special characteristics. Usually, you see a light area and a dark area in the lipofuscin granule, but the dark area in the old people's lipofuscin is homogenous. Here you have a substructure which is rather laminated and resembles fingerprints to some extent. Next, you can see those curvilinear bodies. Here are the light portion of the granule and the dark portions of the curvilinear bodies which have been observed by Gonatas and others in the juvenile and, also, adult types of lipid storage disease. Next are these parallel lines within these curvilinear bodies. They are lipid and protein membranes and rather characteristic of the late life form of lipid storage disease under the EM. This slide is included for contrast. This is Tay-Sachs disease as described by Terry and coworkers. This is the nucleus of the cell, and you have those concentric membranous cytoplasmic bodies which are quite characteristic of the gangliosides in Tay-Sachs disease and are quite different from the late form.

The next and last slide shows the high power view of the membranous cytoplasmic bodies in Tay-Sachs. This is an interesting development. Not only do we have biochemical characteristics of these entities, but there also are morphological appearances of these deposits that make it fairly easy to diagnose from the biopsy. You do not have to biopsy the brain. You can biopsy the rectal mucosa and get an EM of the ganglion cells and diagnose this as Tay-Sachs and the other as something else. In Hurler's disease (gargoylism), for example, you find the so-called "zebra bodies." They are broad striated structures and, again, look different from the other types. So, there is such a thing as EM impressions of those entities.

Diagnoses submitted by mail:

Kufs disease, adult Tay-Sachs, etc.	12
Tay-Sachs	2
Alzheimer's disease	4
Adult form of metachromatic leukodystrophy	2

Most people called this Kufs disease. The diagnosis of "adult Tay-Sachs disease," etc., I accepted since they are in the same category. Two persons called it Tay-Sachs. Well, this would be unusual in a 50-year-old person. Alzheimer's disease, I think, was based on the clinical description rather than the histological slides. Adult form of metachromatic leukodystrophy? I do not think so. That would primarily be a white matter disease, and here we have the neurons completely filled with this PAS positive material.

Dr. Ziegler: I suppose, like spinach, this was good for me to look up this subject, but it is miserable to read about it. The more you read about it, the more confusing it becomes. Certainly, the Tay-Sachs variety characteristically has accumulation of gangliosides in the neurons and the degree of increase in gangliosides is about four to ten times to normal in the cortex with some increase in the white matter. It is not a normal ganglioside. It occurs in less than 1% of normal brains and constitutes 90% of the gangliosides in the Tay-Sachs brain. There also is increase in neutral aminoglycolipids which are compounds similar to the ganglioside in the Tay-Sachs brain, and there are other chemical facts about these MCBs. (You remember the membranous cytoplasmic bodies that Dr. Kepes showed you.) There are some with high cholesterol contents. Tay-Sachs disease is a very characteristic entity. It is seen almost exclusively in Jews. It is an autosomal recessive; it comes on in the first year of life. The cherry red spot of the macula is characteristic. The dementia, the blindness and extreme EEG abnormality, startled reaction to sound, with seizures sometimes precipitated by sound, are all very characteristic of Tay-Sachs disease. The discovery of the storage of a new glycolipid in Tay-Sachs disease was made by Klenk, and the substance was named ganglioside. It was later discovered that this particular substance differed from the major gangliosides of the normal brain.

Neuropathologists and clinicians concluded that other subtypes, aside from Tay-Sachs, also harbored increased amounts of gangliosides. This, indeed, was proved to be correct for certain cases of late infantile amaurotic idiocy. Zeman divided the late infantile type into five varieties. He summarized their experience with brains of individuals who had amaurotic idiocy and I think there were 18 of them.

All four brains with Tay-Sachs disease or infantile amaurotic idiocy showed massive accumulation of the ganglioside GM2, that is, the original one of Klenk. Nine cases of late infantile amaurotic idiocy contained a 75% relative concentration of GM1, another ganglioside, whereas the remaining five had a normal cellular lipid profile. Four patients fulfilled the clinical criteria of juvenile amaurotic idiocy

(Vogt-Spielmeyer type) and one of adult or Kufs, which is rare. All five brains, that is of the juvenile and of the adult type, were essentially normal. Zeman's idea is that the entire classification should be abandoned and we should now distinguish on clinical morphological and biochemical grounds between GM1 gangliosidosis and GM2 gangliosidosis. Also, some of the cases of the late infantile variety apparently will be GM1 gangliosidosis, and all of the cases of Tay-Sachs disease are GM2 gangliosidosis, which have the characteristic genetic pattern, the characteristic EEG and life course, etc.

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Case # 9. Alexander's Disease in an Adult (Leukodystrophy With Rosenthal Fibers)

Submitted by Frank A. Mantz, M.D.
Menorah Medical Center, Kansas City, Mo.

Dr. Kepes: This case is not much easier. It may be a little more difficult because it is less well-known than the storage diseases. That case came as a big surprise to us because, clinically, it was an unexplained case, and I was not certain about how to fit together the histology and the clinical history. However, fit together we must because it is the same patient.

This 43-year-old woman was first admitted to Menorah Medical Center in August, 1961 because of an anxiety reaction to her 16-year-old son having epileptic seizures. The lady was given Librium, Elavil and Darvon. After her release, she started drinking. In November, 1961 she was readmitted for persistent anxiety. The day after her admission, she was found to be drowsy. She slept through most of the next day, after which she became and remained comatose. Her reflexes were increased. The cranial nerves were normal. There was no nuchal rigidity and the spinal fluid was normal. A neurosurgical consultant felt that there were no lateralizing signs and that hers was not a surgical problem. She developed a pseudomonas urinary infection and died in March, 1962, four months after admission. This history tells us that the patient was in coma for four months without any localizing neurological signs, so, quite likely, she had a diffuse brain disease of some sort. This is all we can learn from the history.

This slide shows a section of the medulla oblongata, but every slide from the brain elsewhere also showed the same. Most of the lesions were in the white matter, and you find a better concentration of white matter in the brain stem than elsewhere. So, these are regarded as good examples.

Now, you see strange accumulations of pink eosinophilic sausage-shaped structures that were present throughout the medulla. They were accentuated in several areas, such as around the blood vessels (Fig. 1). This higher power view shows you that these structures have no nuclei. They are not cells; they are parts of cells—these are processes (Fig. 2). If you have seen low grade astrocytomas, particularly those of the optic nerve, you will recognize these structures. These are Rosenthal fibers, which are to be regarded as degenerating processes of astrocytes. But obviously, this patient did not have a tumor. You can look at this medulla and see no neoplastic growth. Consequently, it had to occur without a neoplasm. In some areas, there is a tremendous accumulation of these structures. On cross section, they look round. They also are referred to as cytoid bodies and they are rather irregular. None has nuclei.

I think this is the slide I really wanted to emphasize. It is a trichrome stain where the meninges are green. You see a rather bright staining red color

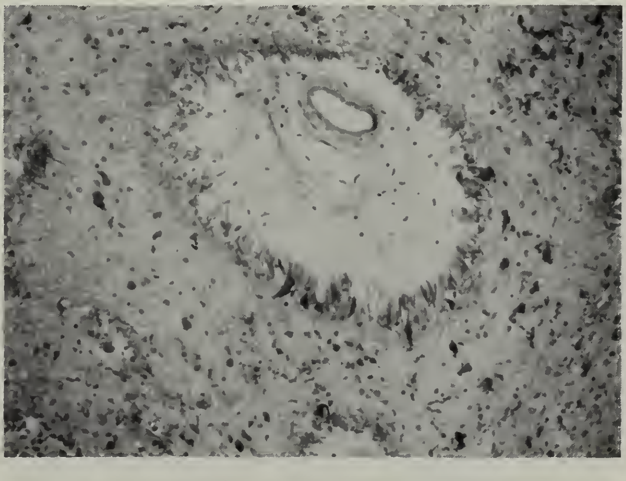

Fig. 1 Perivascular accumulation of Rosenthal fibers (degenerated astrocytic processes).

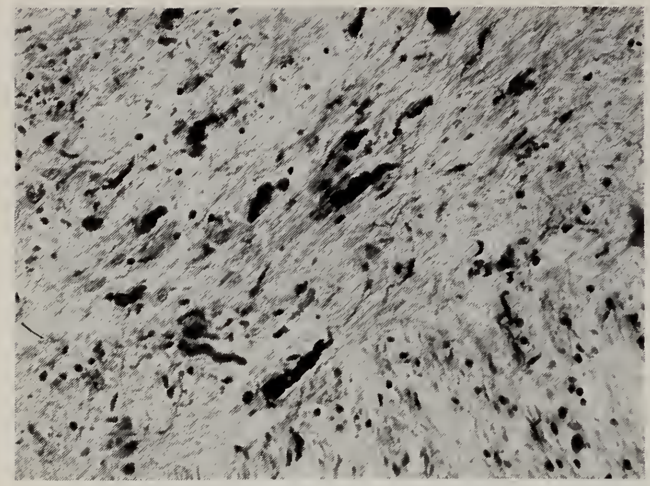

Fig. 2 On Gomori's trichrome stain, Rosenthal fibers appear as dark, slightly tortuous, elongated masses.

to those Rosenthal fibers and they accumulate in two foci. One is the surface of the brain subpially and the other is in the perivascular areas. On a myelin stain of the same medulla, you do not find marked decrease of myelinization. This is important, as I will point out in a second. You have a pretty well-preserved myelin structure.

Now, that brings us to the question of diagnosis. Briefly, what we have here is a large accumulation of Rosenthal fibers in a nonneoplastic brain, a diffuse deposition of these structures which is due to changes in the astrocytes. This disease, presently regarded as a form of diffuse sclerosis, was described by Alexander in 1949 in a baby. Since that time, it has been called Alexander's disease. It was only recently that a few cases in adults have been described, and our case is one of them.

Diagnoses submitted by mail:

Alexander's disease	4
Wernicke's disease	2
Metachromatic leukodystrophy	2
Spino-cerebellar atrophy	2
Central pontine myelinolysis	2
Progressive bulbar palsy	2
Alcoholic neuronal degeneration	2
Diffuse astrocytoma	2

Alexander's disease is the right diagnosis. I do not see any evidence of Wernicke's disease, which usually should give you a number of dilated capillaries and, maybe, microhemorrhages. Metachromatic leukodystrophy? Well, certainly we have white matter changes, but they are different from the metachromatic changes. Spinal cerebellar atrophy? I do not think so, because in that entity, there are only a few fiber tracts involved and not the entire medulla, as seen here. Cerebral pontine myelinolysis—I did not show you a slide of the pons and, therefore, it does not fit very well. Progressive bulbar palsy? Yes, this patient probably had a type of bulbar derangement, but not the usual motor cell type. Alcoholic neuronal degeneration? I guess so, based on history. Diffuse astrocytoma is an interesting diagnosis because really, in most cases, Rosenthal fibers are seen in astrocytomas rather than in nonneoplastic conditions. Actually, any astrocyte can have this change and you can see it in the wall of syringomyelia or, for that matter, in any glial scar.

The thing is that in this disease, this change involves the brain diffusely. If you look in the textbooks, you will find this disease classified among the leukodystrophies or myelin diseases and you will find it in the same chapter as diffuse sclerosis of Schilder and metachromatic leukodystrophy. However, it is not a myelin disease. The reason it was believed to be a myelin disease is that if it develops in a baby, in whom much of the myelin has not formed yet, these abnormalities of astrocytes will interfere with normal formation of myelin. Then, you have a leukodystrophy on your hands.

Alexander and others who described the infantile cases did myelin stains and found a myelin deficiency. But the adult cases are the real clues. Here you already have the myelin formed, and it does not seem to bother the myelin very much. It is not a disease of myelin; it is a disease of astrocytes. One has to have normal functioning astrocytes to have normal metabolism in the brain. If such a process knocks them out, inevitably this will affect brain function in general and it will give you the picture of a diffuse brain disease.

Dr. Ziegler: This disease is a great rarity, seven cases having been reported up to June, 1968. All except one were in infants, with mental retardation and enlargement of the head as the most distinguishing clinical characteristics with the nonspecific deterioration of central nervous system function and death. No typical laboratory manifestations are known, but there is a characteristic histopathological picture. The case reported in November, 1968 in the *Archives of Neurology* was of an adult with an interesting course. The illness had its onset at the age of 32 with a "stuttering course" of attacks that were completely compatible with the diagnosis of multiple sclerosis. By the age of 34, the individual had nystagmus, cortical spinal tract signs and then, over the years, developed ataxia and then spasticity and quadriparesis and death. Spinal fluid was always within normal limits, as it not infrequently is in multiple sclerosis. That is really about all there is to say. Clinically, all of the other cases, as I said, have been in infants and with nonspecific courses.

I remember this present case very well. The patient was normal except for what appeared to be a neurotic psychiatric problem up to the time of her admission to the hospital. Within a few days, she became definitely dull mentally; she was receiving small doses of insulin at the time. At that time, the psychiatrists were using insulin as a quieting relaxing agent. We thought that, perhaps, she had been developing hypoglycemic reactions. Then, one morning she was found comatose and no one knew what had happened. Speculations varied from too much insulin received and profound hypoglycemia to the possibility that she might have become anoxic during the night and might have shown brain damage. Also, there was the possibility that, somehow, she had ingested large amounts of drug. Certainly, the neurological history was very brief from a few days of drowsiness and then deep coma and, following that, just survival until the time of her death. It is certainly a unique case in view of the clinical manifestations correlated with these histological findings. I was going to ask Dr. Kepes if there are any known etiologic agents that affect glial cells to form Rosenthal fibers?

Dr. Kepes: We know very little about that. We only know that this type of change happens in optic nerve glioma; it is almost pathognomonic. It does not seem to take a special chemical stimulus for the astrocyte to do it, but normal astrocytes do not ordinarily undergo such change. At any rate, I think this will make a good slide for your collection.

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Case # 10. Recurrent Malignant Meningioma With Pulmonary Metastases

A 49-year-old Negro man was admitted to Kansas University Medical Center in 1961 with complaints of occipital headaches on the right side, high cervical pain, morning nausea and vomiting and staggering gait. Findings pointed to a tumor in the right half of the posterior fossa. He was explored and a tumor was found in that area and subtotally removed. He did well for eight years. In 1969, however, he developed clumsiness in the right upper extremity, dysarthria and lethargy. On physical examination, he had tandem gait, ataxia, right horizontal nystagmus and slowed mental status. The chest film showed two "soft" nodules located in the right lung. Brain scan and arteriogram indicated a mass in the right posterior fossa for which he again underwent surgery.

Dr. Kepes: The slides you have are from the second operation. I will show you a few slides from the original operation, also. I probably ought to call upon a neurosurgeon to explain the first slide, but I think there is a vascular mass present in this area on the A-P view of this angiogram. This was preoperative. They removed a tumor that looked grossly like a meningioma. Microscopically, this one is from the original slide. It is essentially a fibroblastic meningioma. There is some palisading which is not uncommon in meningioma. Sometimes, you even have the problem of differentiating it from a neurolemmoma (Fig. 1). The cell type is a little different from neurolemmoma. It is more pleomorphic and it was not in the right place either. In the next slide, you have some indication, even in the first operative specimen, that this is not quite a benign meningioma. There are some hyperchromatic nuclei and, I think, some mitotic figures. So, this was diagnosed as a highly cellular, probably somewhat-anaplastic, fibroblastic meningioma. The patient went on for eight years free of symptoms until he had a local recurrence.

This reticulin stain from the original tumor shows that the tumor cells, indeed, produce a lot of reticulin fibers. The meningothelial type usually doesn't, but the fibroblastic meningiomas do. In a recent specimen, eight years later, we again have a fibroblastic meningioma which shows a little more of this palisading and this rhythmical pattern. It is something you also can see in thecomas and other mesenchymal tumors. It became more cellular than it was eight years ago.

In some areas, there is a change of character in the tumor. The cells are more plump and more epithelial looking. The nucleus also is clear, which is usually seen in meningiomas. You see those almost empty looking nuclei. But the whole picture is a little bit more on the epithelial side. There are more signs of malignancy, such as a tripolar mitosis in this particular cell here.

Here comes the difficult part. In some areas of the tumor, there are cavities formed now and the wall

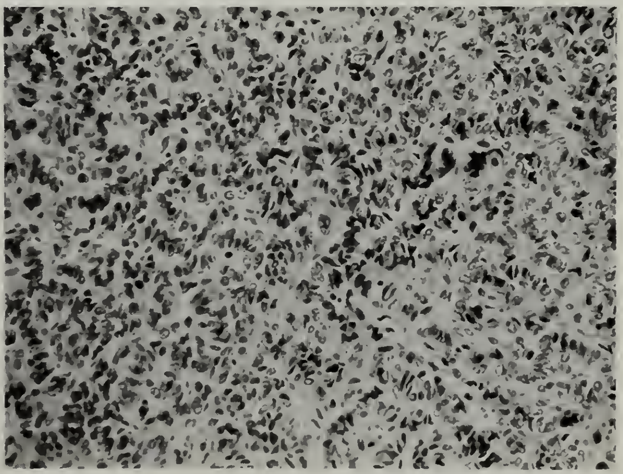

Fig. 1 Cellular meningioma with somewhat rhythmical arrangement of nuclei.

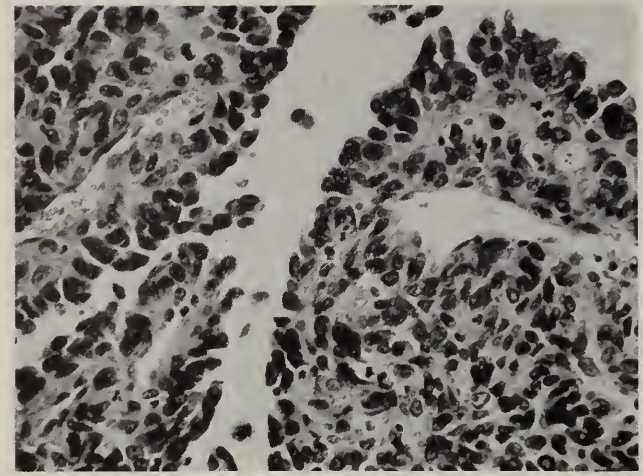

Fig. 2 In this area, a more epithelial-like papillary pattern may be observed.

of the cavities looks more and more like epithelium (Fig. 2). Meningothelial cells, of course, do have a function of epithelium. They cover the arachnoid, and any covering cell at anytime can look like epithelium. General pathologists in this room well know that in mesotheliomas and synoviomas, there is this problem of differentiating between epithelial and mesenchymal tumor. Here, you have this epithelial-like development. In this higher power slide, there are columnar and cuboidal cells covering those areas. It almost looks like carcinoma, and we had to look at it under frozen section on the reoperation. At that time, the patient had masses in the lung, and the question was, "Is he having a recurrence of meningioma or is he having a metastatic lesion from the lung?" It was very difficult to discern on the frozen section. First, it looked like carcinoma when we looked at areas like this. Only the other areas told us that he had a recurrence of the original tumor.

In some areas, you begin to see a papillary arrangement. So, you have a meningioma, malignant meningioma, that became papillary almost like a carcinoma. Unfortunately, the tumor began to invade the blood vessels and some of these clusters are found inside blood vessels. That is not too surprising in view of the fact that there are pulmonary metastases. Here in a lateral view of his chest is a large metastatic mass and there is a smaller one.

Diagnoses submitted by mail:

Metastatic renal cell carcinoma	2
Malignant acoustic neurolemmoma	2
Ependymoma	4
Meningioma	4
Medulloblastoma	2
Cerebellar astrocytoma	2
Metastatic bronchial carcinoma	2
Angioreticuloma	4

The submitted diagnoses show an interesting spread. They include malignant acoustic neurolemmoma, I am sure, because of the palisading. However, acoustic neurolemmomas practically never become malignant. Ependymoma was submitted because of the papillary areas. Meningiomas, medulloblastoma—I do not quite know why the latter diagnosis was made. Cerebellar astrocytoma was submitted. Now, metastatic bronchial carcinoma, I am not surprised to see, in view of the pulmonary masses. Angioreticuloma was diagnosed because of the vascularity of this lesion.

This is something for pathologists to remember. Meningiomas, on occasion, may look like carcinomas in some areas, at least, and may become papillary. One reference I gave you in the list is the famous case of Dorothy May Russell (patient's name) described in their book by Cushing and Eisenhardt. This was a woman who had a meningioma which was fibroblastic in the beginning. She had 17 operations for recurrences. In the end, she had massive pulmonary metastases and they were all papillary. Our case is an almost exact replica of that case. The final diagnosis is malignant meningioma or meningeal sarcoma, as you wish.

Dr. Ziegler: Most of the things that should be said about meningiomas are well known to all of you. Meningiomas are characteristically benign tumors with a high predilection to produce seizures. They can be so benign that they are found not infrequently at autopsy without history and without the patient having neurological signs, and then they vary all the way from that kind of a lesion to the very malignant lesions that Dr. Kepes has been discussing. Also, they tend to occur, as you know, on the outside between the brain and meningeal surfaces in a variety of locations. Many can be totally excised. More commonly, small amounts of tumor are left and recurrences occur many years later and, again, patients can be operated on successfully. We do not really think there is anything specifically characteristic about this patient. His signs were all quite characteristic of impaired cerebellar function, and this is one of the common locations with meningioma.

Question from the Audience: He recently returned with a recurrence. Did he respond to radiation?

Dr. Kepes: This is a paradoxical situation. The more mature benign meningiomas do not respond to radiation very well. It takes a malignant transformation to make them radio-responsive and, of course, I would rather have a nonresponsive but benign meningioma that can be removed surgically without recurring than this one.

(*Follow-up comment:* The patient developed increasing numbers of pulmonary metastases and died of intractable respiratory failure.)

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Case # 11. Progressive Multifocal Leukoencephalopathy

Submitted by E. P. Richardson, Jr., M.D.
Massachusetts General Hospital

This 59-year-old man had a known case of chronic myelogenous leukemia for at least two years. His neurological illness began with episodes of vertigo about 15 months before he died. Thereafter, his gait became increasingly unsteady. On admission to the Massachusetts General Hospital, there was a left hemiparesis and left homonymous hemaniopsia. The cerebrospinal fluid was normal. EEG showed diffuse slowing, which was more marked on the right. A pneumoencephalogram showed some enlargement of the ventricular system. He eventually became blind, and this was regarded as a cortical form of blindness. He became demented and died one month after admission to the hospital.

Dr. Kepes: I am sure that when you looked at these slides, you were looking for leukemia since it is possible for the brain to be involved with leukemic cells. There is no leukemia in this brain. Another thing you might have looked for is some fungus infection that had developed in a leukemic patient with decreased resistance. There is no fungus in this brain. There is a piece of cortex and white matter, and the white matter is the area that shows the changes. There is some softening in this area, and even on H & E, you may be able to see a few gitter cells which indicate some myelin breakdown. More striking than such areas of softening is the fact that some of the glial cells look strange. The nuclei of these cells, particularly the oligodendroglial cells and some astrocytes, are enlarged and dark staining. You can see that there is some abnormality. These are hyperchromatic, bizarre-looking nuclei and yet you do not see a neoplasm (Fig. 1). There is increase in the size of these cells. They do not proliferate. They are just sitting in their regular place, but they look different and some seem to have sort of an inclusion body.

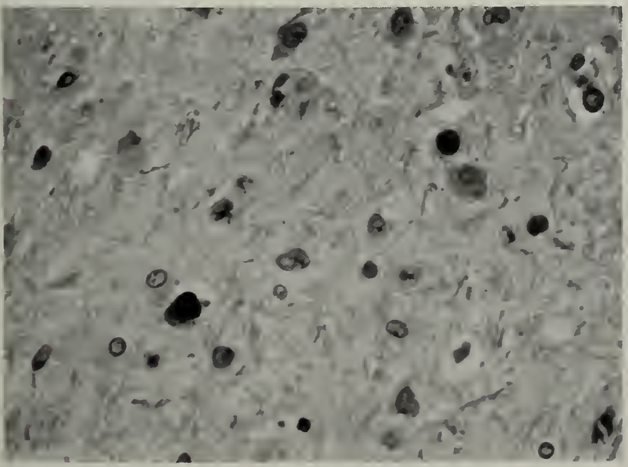

Fig. 1 Pale-staining foamy histiocytes and bizarre-appearing glial cells are seen. The nuclei of the oligodendroglial cells, in particular, are abnormally large and hyperchromatic.

The next slide shows an oligodendroglial cell. Next to it, there is a normal oligo which is about six times as large as a normal oligo and has a deeply hyperchromatic nucleus. This astrocytic nucleus seems to be doubling in size now, and there is some indentation in its membrane.

This slide shows an astrocyte that really looks malignant. Even though there is no apparent neoplasm, you begin to wonder how can a cell that is not neoplastic look like this? So, you have two features together—the breakdown of myelin with foamy cells and a neoplastic looking change in the astrocytes and oligodendroglial cells. Next is a fat stain of a slide that shows that the gitter cells, the macrophages, really have myelin breakdown products.

I got the next slide from a recent case in Wichita so that I can show you what the lesion looks like in the gross (Fig. 2). It shows multifocal degeneration of the white matter. It may be symmetrical. A close-up view shows irregular edges and a grayish discoloration and some hyperemia in these foci. It almost looks like multiple sclerosis, but it isn't. The lesions are more irregular and they do not always occupy the characteristic area next to the corpus callosum that you find in mutiple sclerosis. This is an illustration by Dr. Zu Rhein who, sometime ago, did some electronmicroscopy on these bizarre looking cells and found virus-like particles in the nuclei which belong to the Papova group and are char-

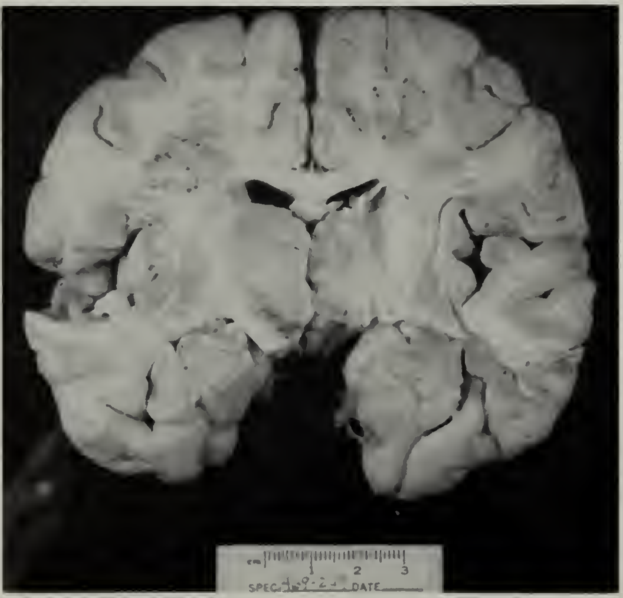

Fig. 2 Bilateral areas of demyelination in the centrum semiovale. (Another case of progressive multifocal leukoencephalopathy, courtesy of Dr. William Eckert, St. Francis Hospital, Wichita, Kan.)

acteristically seen in this disease. The next slide shows the very nice, crystalloid appearance of these inclusions. Dr. Zu Rhein found these only in the nuclei of the oligodendroglial cells and not in the astrocytes.

Diagnoses submitted by mail:

Progressive multifocal leukoencephalopathy	8
Pick's disease	4
Encephalomalacia (thrombosis)	4
Thrombotic thrombocytopenic purpura	2
Focal demyelination 2d to therapy	1

This disease was called by its proper name, "Progressive multifocal leukoencephalopathy," by most contestants. Pick's disease was submitted, as well as encephalomalacia. Well, there is some softening there and breakdown of myelin. In regard to thrombocytic thrombocytopenia purpura, there are little hemorrhages there, but I did not see platelet thrombi or fibrin thrombi. Pick's disease would show cortical changes not represented in these slides.

Finally, focal demyelination secondary to therapy was submitted. I have to accept this in a way because it is focal demyelination and it probably has something to do with therapy or, maybe, the underlying basic disease.

This entity was described by Astrom, Mancall and Richardson in the journal, *Brain*, back in 1958. The obvious features are demyelinization and this tumor-like change of the glial cells, and it seems this is caused by a low virulence virus that attacks the brains of people who for some reason have decreased resistance. Some of these people have Hodgkin's disease; others have leukemia. Sarcoidosis also has been described as the underlying disease and in one case that Richardson reported, the patient was simply old. He was 81 years old and was debilitated. Apparently, this was reason enough to let the virus get the upper hand. So far, it has never been seen in normal people who have no debilitating underlying disease. This type of virus has been added to tissue cultures of glial cells and it certainly made those astrocytes grow very wild. Some people believe that they actually change into neoplasms. In the human cases, they are very ugly, but they stay put. They do not begin to proliferate as glioblastoma does; it is very important to distinguish it from multiple sclerosis. If you look at the myelin stain, it looks like MS, but the H & E really is more helpful in this case than any special stain.

Dr. Ziegler: This illness, as Dr. Kepes told you, is one of recent description by the Massachusetts General group. When it was first described, it was guessed that it would turn out to be of virus origin, and reference was made to the probability that the chronic disease altered the immunity of the individual rendering him susceptible to viral infection. It is usually of quite rapid progression and just a matter of months until death. However, there are now reported cases of years' duration, another example of an infectious viral disease affecting the nervous system with a very slow course. There is nothing specific about the clinical manifestations. In any diffuse demyelinating disease, any particular nervous function can be affected, such as corticospinal tract, special senses, coordination and others. It is a white-matter disease, so the signs are always those referable to white matter, namely spasticity, long tract signs or those signs referable to the subcortical white matter of the hemispheres. There are no specific findings biochemically or in the cerebrospinal fluid. Of course, the interesting aspect is that since it is now known to be of a specific variety of infectious disease that produced demyelination, there is a really intensifying race for finding an analogous agent that might cause multiple sclerosis, which is another demyelinating disease of far greater incidence.

Dr. Kepes: Any questions or comments? Yes, Dr. Jacobs.

David Jacobs, M.D.:[*] Is myelogenous leukemia often the underlying disease?

Dr. Kepes: Yes, there have been other cases of myelogenous leukemia. Richardson in the *New England Journal of Medicine* described 11 cases of which one or two were with myelogenous leukemia. By now, we have maybe 60 or 70 cases reported. On electron microscope alone, there have been 17 cases studied and, of course, there are many others among which I believe there are some myelogenous leukemias. A case of chronic TB also has been reported. The patient we had from Wichita did not have leukemia at all. He had diabetic nephropathy and was rather severely debilitated because of that.

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[*] Providence Hospital, Kansas City, Kan.

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Case # 12. Perithelial Sarcoma (?) Glioblastoma (?)

Contributed by Magda Kepes, M.D.
Veterans Administration Hospital, Kansas City, Mo.

A 57-year-old white man was in good health until one week prior to admission when he complained of weakness in his right side. He had no headaches, nausea or vomiting. There was no history of hypertension or cerebrovascular disease. Cranial nerves were intact. He had right hemiparesis. A left carotid angiogram showed a mass in the left posterior frontal area, which, in another hospital, was thought to represent a recent infarct or edema. Reevaluation at the VA Hospital led to exploration and the finding of a cystic tumor in the left frontal lobe. He received 5,000 rads of Cobalt.

Presently, the patient complains of a sore right arm in which x-ray shows a cortical lesion of the humerus, which is thought to be compatible with a flat osteochondroma. He also has a painful mass in the right buttock which has not been explored, but is believed by some to represent an abscess. A puncture of this area yielded only serous fluid. Sections are from the brain tumor.

Dr. Kepes: Let us have the first slide, which is a difficult one. This is a cellular lesion. There are many blood vessels in it. Also, there is some variation in the size of the cells. Not only are there many blood vessels, but the cells seem to have some kind of an intimate relationship to the adventitia of the blood vessels. The endothelium is not abnormal, but you can see that there is a concentrical arrangement of the cells around the blood vessels and then they "take off" and become dispersed in a more diffuse fashion around the area (Fig. 1). In this higher power slide, you have the capillary endothelium. Then, if you look at the adventitial cells, they seem to be almost in an onion skin arrangement. Gradually, you see that they are peeling off the blood vessels (Fig. 2) and are becoming more and more dispersed. A little farther away, they begin to look like histiocytes. Still farther away, they seem to have ingested some fatty material and they look more or less like the gitter cells you see from microglial origin. Whatever it is in this cell it pushed the nucleus way out to the periphery; it almost looks like a signet ring cell but it does not contain mucus (Fig. 3).

The question is, "Is this a metastatic tumor or is it an astrocytoma, glioblastoma or is it a sarcoma?" I do not think it is a metastatic tumor in spite of the hints in the history about lesions in the bone and buttock. Also, I do not really think it is a glioma; there are not enough processes of the cells. Any decent astrocyte ought to have a few cellular processes; these cells are too rounded. The relationship to the blood vessels is not what you see in an astrocytoma. Instead of having cells at right angle to the blood vessels, you see a concentric arrangement.

Here is a PTAH stain; the yellow color is for collagen and reticulin. You can appreciate a little bit

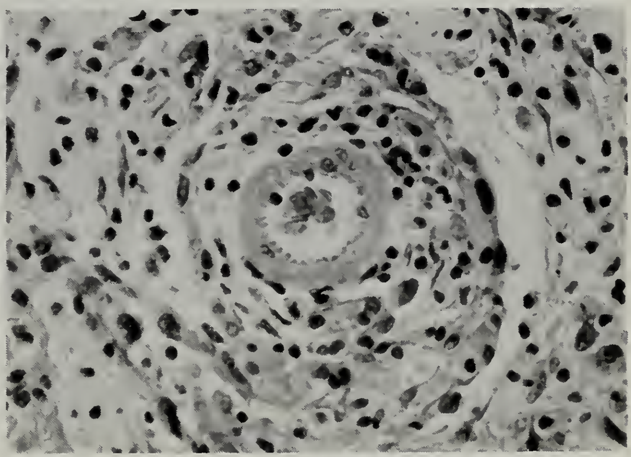

Fig. 1 Tumor cells are surrounding a blood vessel in concentrical layers.

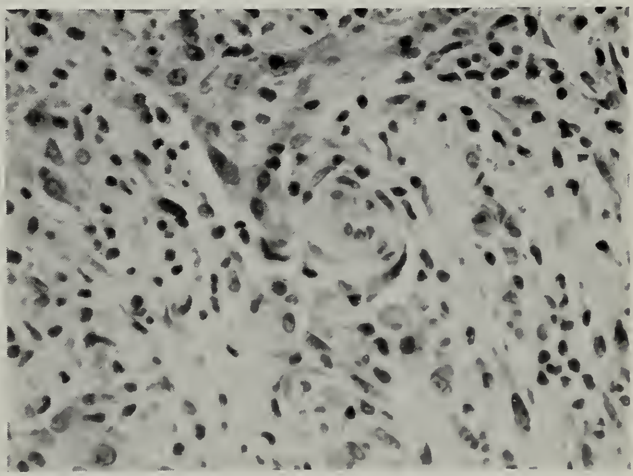

Fig. 2 In this area, the tumor cells appear to "peel off" the adventitia of a small vessel.

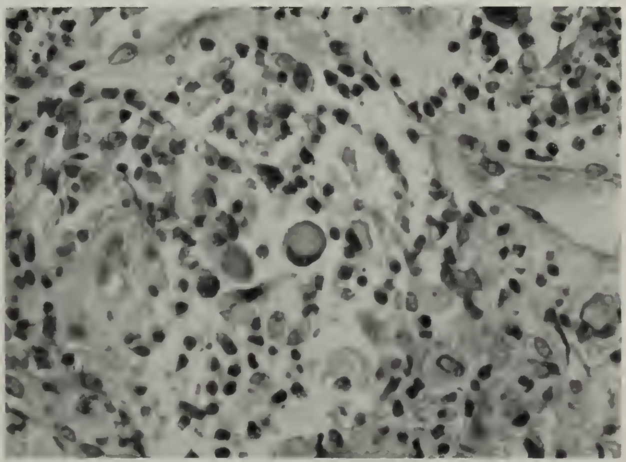

Fig. 3 In areas away from vessels, the cells resemble histiocytes, some with eccentric nuclei as if phagocytized some material.

that some of these tumor cells are really inside some of the adventitial fibers and they form part of the blood vessel wall. Not only that, but you even find a mitotic figure inside the collagen of the blood vessel wall. There are some large astrocytes present in this lesion and some of them produce glial fibers. This is a PTAH stain and there is no denying that there are glial fibers present in this tumor, at least in some areas. These may be reactive astrocytes.

Next is a reticulin stain to show a rather rich network of reticulin. You will note that some of the tumor cells are outside of the network where they are rather free of the reticulin and some are involved with the reticulin fibers.

Diagnoses submitted by mail:

Perivascular sarcoma	4
Astrocytoma	4
Sarcoma, probably metastatic	2
Meningioma	6
Hemangioendothelioma	2
Glioblastoma/gliosarcoma	2

This was called perivascular sarcoma, which I also think it is. I think these tumor cells come from the adventitial elements of the blood vessels and they spread out and behave like a malignant lesion with the appearance of histiocytes in some areas. Some thought it was an astrocytoma; I can see their argument, but I do not believe it quite fits the usual astrocytomas. Sarcoma, probably metastatic, was submitted. I do not have any evidence that there is a primary here. Meningioma was submitted, as was hemangioendothelioma. Well, most of these cells were outside the blood vessels and, to me, the endothelial lining seems to be innocuous. A very cautious diagnosis was gliosarcoma, which indicates that maybe some of the elements in this tumor are glial. I think that, essentially and predominantly, this is a sarcomatous lesion of adventitial tissue origin. This is one of the least understood tumors of the brain, and there are only slight hints about it in some of the books. In Kernohan's *et al* books on sarcomas of the brain, you will find references to it; it is very rare. I think the prognosis is not very good in view of the mitotic figures.

Dr. Ziegler: I think that probably there is very little comment appropriate on this case clinically. One of the aspects that interested me was the angiogram which caused some confusion between infarction and edema or neoplastic lesion. Sometimes, this is a problem neuroradiologically. With very recent infarcts, there is rapid filling of the veins and A-V shunting which is reminiscent of glioblastomas. It is particularly complicated by the fact that in the infarct, which is anywhere from two days to three weeks old, the brain scan will be indistinguishable from that of a neoplasm. It was originally thought when this subject was discussed that the brain scan had certain patterns which were diagnostic of vascular lesion as opposed to a neoplastic lesion. However, I think it has been fairly well recognized that these two lesions are indistinguishable. Perhaps one of the neurosurgeons would like to comment on that. Dr. Clough, have you ever had this problem on an angiogram where it is hard to tell an infarct from a tumor?

Dr. Charles Clough:[*] Yes.

Dr. Kepes: Any comments from the pathologists on this tumor? I thought this would be one of the most controversial. Before we started, I heard someone say, "If this is not a glioblastoma, I will walk out in the middle." But he restrained himself, which I appreciate.

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[*] Neurosurgery, Kansas University Medical Center.

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Case # 13. Histiocytosis-X of the Brain (Hand-Schüller-Christian Disease)

Submitted by R. Guillan, M.D., Topeka, Kan.

A 31-year-old man was admitted to the hospital because of progressive weakness and disordered equilibrium. He was in a good state of health until the age of 18, when he suffered a closed-head injury with 30 minutes of unconsciousness, followed by an uneventful recovery. A year later, he suddenly developed a marked thirst and increased water intake and urinary output. This polyuria and polydypsia persisted without any other symptoms until age 25. For seven years, this was the only problem he had. He then developed a pain-free discharge from the left ear. Radical mastoidectomy was performed and a pathology report said "chronic granulation tissue from the ear." X-rays of the skull and other examinations could not detect the cause of his persistent diabetes insipidus. There were no bony defects or visceral change. Aside from the diabetes insipidus, he was asymptomatic for the next four years, which makes 11 years. At age 29, he slowly developed progressive weakness of the right leg and arm, ataxia and dysarthria. Because of the multicentricity of the lesions clinically, a tentative diagnosis of multiple

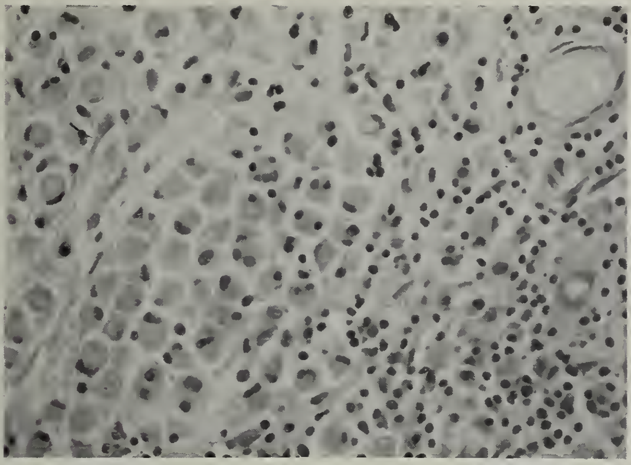

Fig. 1 A mixture of lymphocytes and large bodied histiocytes is present. The histiocytes have phagocytized some lymphocytes and plasma cells.

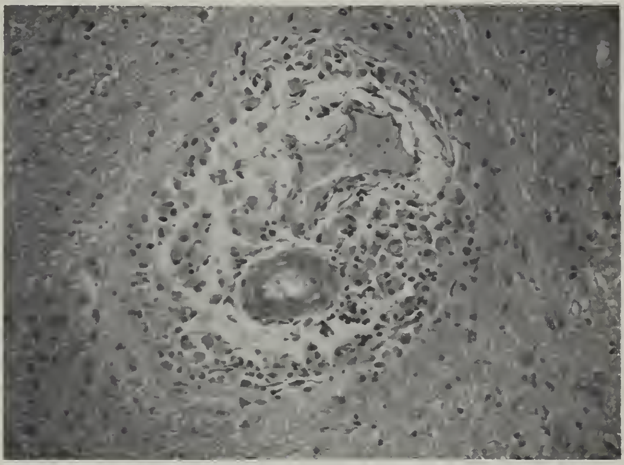

Fig. 2 A "new focus" of the lesion at some distance from the main mass shows an accumulation of histiocytes in the periadventitial spaces of blood vessels.

sclerosis was made. Eventually, he became bedridden and he died of pneumonia. Postmortem examination of the brain showed grayish-yellow granular masses involving the hypothalamus, cerebellum and brain stem.

Dr. Kepes: The sections you have here are from the cerebellum, although there were other areas also involved. First is a gross view of the cerebellum; you will observe that the fourth ventricle is compressed into a vertical slit. On the right side, you see a granular mass that has some yellowish areas in the center. Next, a higher power view with a grayish granular area also shows a yellow discoloration, almost sulphur yellow, and it is forming irregular patches. Here is the fourth ventricle that is compressed by this enlarged area.

This is an illustration from the *Virchow's Archives of 1935.* Professor Chiari from the University of Vienna published a case report of this which is exactly like our case. It was a case of Hand-Schüller-Christian disease which, in his case, was manifest elsewhere in the body earlier in the course. However, in our case, it remained localized to the brain for many years before it became generalized. The yellow areas, of course, are due to cholesterol deposits. This Nissl stain of the cerebellum shows that the area of involvement is quite cellular; hence, the dark bluish stain on the Nissl is the fourth ventricle.

I admit this is rather misleading because you see what looks like a cellular tumor. Since the cells are pink and light staining, they look somewhat like gemistocytic astrocytes (Fig. 1). It is of some importance that you find some lymphocytic collections scattered in the mass. It is not that an astrocytoma cannot have lymphocytes in it at any time. A glioblastoma, naturally, is even more likely to have areas of inflammation in the neighborhood of necrosis, but I would still emphasize it for what it is worth.

Let us get a closer view of what we have—lymphocytes, plasma cells and these large pink cells, which we will try to identify further. If you will observe closely, you will see that many of the large cells have a foamy cytoplasm. That, in itself, would be unusual for an astrocyte; foamy areas represent lipid depositions. Here is another thing—a strange ingestion of other cells: a number of these large pale cells contain plasma cells in their own cytoplasm. This type of phagocytosis is much more likely to occur in histiocytes than in astrocytes. This is a Nissl stain on which the ingested plasma cells stand out in a dark blue color due to their rich RNA content. This is something that Dr. Magda Kepes and I have described in the *Acta Neuropathologica,* a feature which we found in a number of other cases of the same disease. To assure ourselves that, indeed, there is lipid deposited in many of the cells, we did a fat stain on a frozen section, and this is the way the lesion of your cerebellar slide looks on a fat stain. There are many sudanophilic droplets in the cells. If you examine this under the polarizing microscope, it lights up like a Christmas tree. Those cells are full of birefringent material.

Away from the main mass, you will find secondary foci which really tell us how these lesions come into being (Fig. 2). They begin as perivascular accumulations, as in the previous case. I think these two cases fit together in a way. In the previous case, you had a malignancy from perivascular cells; here, perhaps, these cells do not form a true neoplasm, but they form a proliferation that contains cholesterol. In the brain, there aren't too many possible sources of histiocytes. Some are from microglial cells, but most come from adventitia of the blood vessels. Monocytes from the circulating blood also have been thought to be the sources of intracerebral phagocytes. Little wonder, then, that the new foci of this disease begin around the blood vessels.

Here is another area in which you see a good collection of inflammatory cells which are usually seen in this disease, plus the histiocytic elements peeling off from the adventitia. Here is another area in which, in addition to the perivascular collection of the cells, you find microglial cells surrounding them; the elongated fusiform nuclei characterize the microglial invasion of the surrounding tissues. In addition, there are astrocytes, which usually are present in this particular disease, histiocytosis of the brain. In almost all cases, you find a great degree of astrocytic proliferation and glial fibrils. Therefore, some of these cases are frequently misdiagnosed as astrocytomas because of the secondary gliosis. Not only is there gliosis, but even some bizarre looking astrocytes are present, and they have been described previously in well documented cases of Hand-Schüller-Christian disease. But, this is a "red herring," and you have to watch out for it.

Now, this is a Heidenhain's Azan stain which is particularly useful because you find Rosenthal fibers (shades of Alexander's disease) present due to the astrocytic proliferation. The bluish areas, of course, are collagen. This intimate intermingling of astrocytic fibers and collagen is characteristic of this process in the brain. If you do a reticulin stain, you get an extremely rich network and, in the middle, you have a strong deposition of glial fibers.

This patient, when he died, had lesions in the bones. These are bony spicules. This higher power view shows the cholesterol-filled cells. The lesion of the mastoid has been "revisited" and many eosinophils were found in it. The diagnosis was changed from chronic granulation tissue to eosinophilic granuloma.

Diagnoses submitted by mail:

Hand-Schüller-Christian disease, Histiocytosis-X	8
Astrocytoma	2
Multiple sclerosis	4
Ganglioglioma	2
Sarcoidosis	2
Malignant spongioblastoma	2
No idea!	1

Some people diagnosed it correctly as Hand-Schüller-Christian disease or histiocytosis X. Astrocytoma was submitted. Multiple sclerosis, I think, was suggested by the history and the fact that there were so many lipid filled cells. This makes this diagnosis rather plausible, except for the massive proliferation of astrocytes and other elements in a neoplastic fashion that would be against multiple sclerosis. I believe that those who diagnosed ganglioglioma were impressed by large ganglion-like elements which were actually histiocytes. Sarcoidosis? Well, maybe, because of the lymphocytes around the blood vessels and because of the history of diabetes insipidus. Malignant spongioblastoma—I received this diagnosis from Professor Seitelberger in Vienna. He knew very well what this case was. He knew it was histiocytosis because I worked on these cases with him and he deliberately closed his eyes to this fact and said that even knowing what it really was, glioma was his first impression after looking at the slides. A very honest person said he had no idea.

In the past and even in some current textbooks on pathology, histiocytosis or Hand-Schüller-Christian disease involving the brain often has been described as a lesion in the bone in the sphenoid area. This lesion will push against the hypothalamus or involve the posterior pituitary so that the patient will have diabetes insipidus. This is undoubtedly true in a number of cases, but there are cases, such as our present case, in which the lesion begins in the brain (usually in the hypothalamus). Before any other symptoms develop, there may be cerebral symptoms for years. We have seen a number of patients who died before any extracerebral manifestations developed. They are the really difficult cases to diagnose. If, on the other hand, you have someone with bones full of xanthomatous lesions, you have no problem in correctly diagnosing the cerebral lesions, too.

Dr. Ziegler: This is a rather complex subject. A few points might be worthy of discussion here. As Dr. Kepes says, the lesion has a particular preference for the hypothalamus. This has been known, of course, for a long time. It can be present producing only diabetes insipidus with no other signs of pituitary or hypothalamic dysfunction. I believe this patient had no other indications for pituitary or hypothalamic dysfunction. It is worthy of note that there have been cases in which the polydypsia of diabetes insipidus actually precedes the polyuria, that is, the increased excretion of water. So, there are probably thirst centers in the hypothalamus in addition to the centers that control the secretion of ADH hormone. Of course, the hypothalamus controls many functions, such as carbohydrate metabolism and appetite, in particular. There is a satiety center in the medial portion of the hypothalamus and lesions here in animals have been known for many years to produce polyphagia and marked obesity. The lateral portion of the hypothalamus, on the other hand, has what is called a feeding center so that lesions here in animals will produce the lack of desire to eat and emaciation. The hypothalamus, independently of course, also has control over blood glucose. There are many other aspects of hypothalamic disease which might be mentioned. In infants, the hypothalamic disease causes a failure to thrive. The children become emaciated, although they frequently do not appear to be in pain, uncomfortable or severely ill, except for their general emaciation. Precocious puberty occasionally occurs in hypothalamic and thalamic lesions.

The differential diagnosis for multiple sclerosis might be mentioned now, and I think the most important point that should be made here is that diabetes insipidus is actually an extremely rare manifestation of multiple sclerosis. I have personally seen a lot of multiple sclerosis and I do not believe I have ever seen a case with diabetes insipidus. The progression of neurological disability, of course, does occur with multiple sclerosis although it is much more common to have intermittency. As a general principle when one observes a progressive defect, particularly in a young individual, one has to be very cautious of this diagnosis. It is important to note that in Hand-Schüller-Christian disease there is no abnormality in the blood lipids. Of course, there are other entities with xanthomas which are characterized by elevation in blood lipids and with lipid deposits in skin and tendons. This is not the condition we are talking about here.

Dr. Kepes: It is important to note that foamy cells by themselves do not make histiocytosis. Just the day before yesterday, I had a slide of a child who had had E. coli meningitis since he was born. He died in a few months and had, by that time, a chronic meningitis. You know that in the neighborhood of purulent inflammation, one can get a pseudoxanthomatous reaction. The leukocytes undergo fatty disintegration and the macrophages ingest the lipids. He had that, but amidst the foamy cells, there were a great many multinucleated Touton giant cells "classical" for histiocytosis. I have not seen this in chronic meningitis before. However, there it was, surrounding the pus. So, histiocytes can go to any length to try to fool us. It is very important, as Dr. Ziegler pointed out, that cerebrotendinous xanthomatosis is an entirely different entity. There, as a starter, you have elevated cholesterol levels and whatever happens after that is a reaction to this increased amount of lipids. In the case of Hand-Schüller-Christian disease, you have histiocytic proliferation as a starter. There may or may not be secondary deposits of cholesterol in the lesion, but the blood cholesterol is always normal.

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Case # 14. Carcinosis of the Meninges

Submitted by William McPhee, M.D.
North Kansas City Hospital

This patient was a 60-year-old Negro woman who was admitted to St. John's Hospital in Leavenworth, Kan. with the chief complaint of "blindness." Her illness started three months prior to admission with headaches, which were soon followed by blurred vision. Her left eyelid started to droop and within a week, she became totally blind in both eyes. There was a 15 lb weight loss within five months prior to admission. Examination of the throat, chest, breast and abdomen was negative. The uterus was not enlarged. A sessile polyp was found within the endocervix, and a smear for cervical cytology was read as class 0. Neurological examination was considered negative except for a positive Romberg's sign with tendency to fall backward and to the left. Following her dismissal from St. John's Hospital, a brain scan and EEG were done in Kansas City and both were considered negative. She had episodes of convulsions. The spinal fluid examination showed eight red blood cells, 41 white blood cells (10% polys, 90% lymphs). The Pandy was positive, protein 45 mg%, glucose 12 mg% and colloidal gold was 0001110000. There was no increased pressure. Her condition deteriorated and she died. Unfortunately, the permission for autopsy was limited to the examination of the head. The scalp, calvarium and dura were unremarkable. The brain weighed 1,450 gm. The leptomeninges had a somewhat milky white appearance. Cut surfaces of the brain showed marked dilatation of the ventricles, but no other gross changes.

Dr. Kepes: Here you have the surface of the brain in low power view. There are a number of round cells present in the meninges, and this apparently is the main lesion and these form clusters. On this power, it is not quite clear what they really are. Are they inflammatory cells or are they neoplastic or maybe some parasite (Fig. 1)? This higher power view is from the cortex because some of the clusters are also seen in the parenchyma, not only on the surface. You can recognize that these cells have a nucleus and there also is a vacuole in many of the cells. What is most disturbing is that inside a vacu-

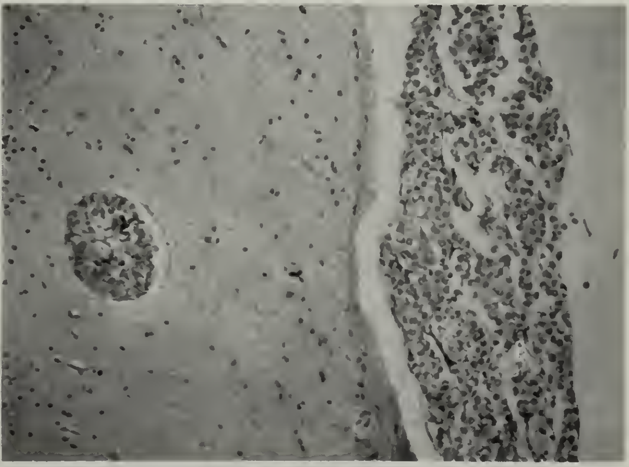

Fig. 1 Small round cells have accumulated in the leptomeninges and around a blood vessel in the superficial cortex.

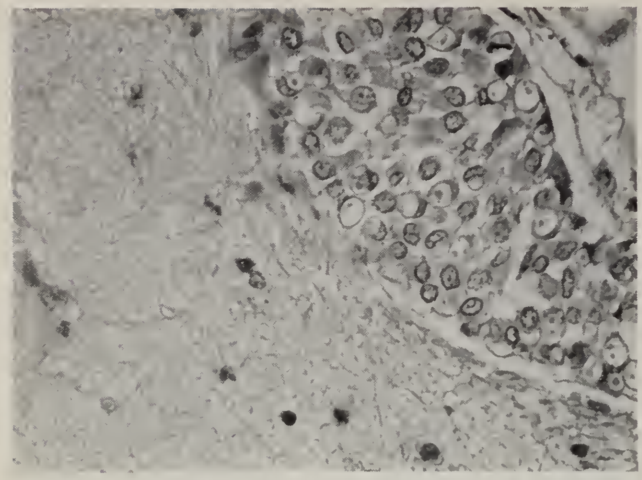

Fig. 2 Higher power reveals that many of the meningeal cells are of the "signet ring" type and contain condensed mucous droplets.

ole, there is a little reddish dot in some of these cells. So, we have vacuolated elements here, and it is still not quite clear what they are. However, I think that in some areas, they seem to produce a glandular structure (Fig. 2). They do get together like cuboidal cells and they surround a lumen, in addition to having those clear spaces within the cytoplasm. This patient was embalmed. Maybe the embalming fluid had something to do with this.

This PAS stain shows that there are strongly positive droplets in these vacuoles. So, here are the nuclei and here are big droplets of sorts, and they have a central condensation and a little halo around them. Because of this target-shaped appearance, a number of people who saw this thought this was probably Torula (cryptococcus), showing a central yeast and the heavy mucoid capsule around it. But, I think these are essentially signet ring cells, and the mucus contracting in this fashion is maybe due to the embalming process. That probably caused early precipitation and, possibly, contraction of the mucus droplets because this is not the usual appearance of mucus. We may have a little or a lot of mucus, but they usually form a more homogenous mass within the cells and do not have this target-shaped appearance.

Diagnoses submitted by mail:

Carcinosis of meninges (various primaries)	12
Cryptococcosis	4
Lues	2
Leukemic infiltrate	2
Waldenstrom's macroglobulinemia	2

Most people recognized this as carcinosis of the meninges. Various primaries have been mentioned. Since we did not have a general autopsy, I do not know where the primary was. My personal preference would be stomach, in view of the signet ring cells. Some people wrote cryptococcosis. Others thought it might be lues. I do not know why, but I guess that because of the blindness they thought syphilitic optic atrophy played a role here. Leukemic infiltrate and macroglobulinemia were submitted. I do not know what was there histologically to support these two ideas, but I can see why some people thought it was Torula. I think it is of particular interest that the patient's problems started with blindness. Examination of the optic nerves showed massive carcinomatous infiltration of the meninges surrounding the optic nerves. That explains why she was blind. As far as the hydrocephalus is concerned, she had a heavy infiltrate of the same cells around the foramen of Magendie and Luschka and this obstruction was responsible for the hydrocephalus.

Dr. Ziegler: Carcinomatosis of the meninges is an interesting condition, which is more uncommon than one might think from the amount of discussion that centers around it. It is still fairly rare. There is a nice little article with a discussion of the mechanism of depressed sugar in CSF in the *Archives of Internal Medicine,* 1966, Vol. 117, by Kilpatrick and coauthors. Dr. Kepes commented on or asked for comment on the normal scan and EEG. Certainly, the fact that the brain scan was normal is not remarkable. The brain scan collects radioactive material only in those neoplastic conditions that are of certain size. I think that with sheets of neoplastic tissue one could not distinguish the collection of such material from normal meninges. One cannot detect neoplastic tissue except as it accumulates in fairly sizable masses. EEG is a little different matter. Again, EEG in primary meningeal disease is normal. The EEG reflects abnormalities in the thalamocortical neural circuits, so that if the meningitis has not caused several cortical infarctions, for example, the EEG might not be abnormal. Anything which does interfere with the thalamocortical circuits, however, may cause an EEG abnormality. I say this because in primary subarachnoid hemorrhage, for example, one does frequently have markedly abnormal EEG's. But, this is almost unquestionably due to the fact that there is cerebral edema accompanying this condition and not to the meningitis itself or the blood in the spinal fluid.

A Doctor from the Audience: "She had convulsions?"

Dr. Ziegler: Yes, convulsions can be due to a number of causes. The fact that a person has convulsions does not really help. A lot of people have convulsions for a lot of causes and still the EEG is normal. I cannot really tell you. I am sure someone has documented how many cases of meningeal carcinomatosis have normal EEG's, but I do not know off hand.

In Kilpatrick's article of 58 cases, 78% had low cerebrospinal fluid sugar. Of course, it is essential to have a concomitant blood sugar. They document the kinds of neoplasm that can spread to the meninges, and there are many. Of primary brain tumors, probably the most common are the medulloblastomas; but glioblastomas, astrocytomas and occasionally, papillomas of the choroid plexus and melanomas may seed down through the meninges and cause implantations. Among metastatic tumors, stomach, lung and breast carcinomas most commonly cause meningeal carcinomatosis.

In the lung cancer cases, it is not the ordinary bronchogenic CA but rather the adenomatous CA which has a more striking tendency to cause meningeal implants. They discuss the mechanism by which the neoplastic cells may get to the meninges. What is not known, of course, is whether it goes through the lymphatics or whether it could be carried by the blood stream to the choroid plexus and then seed down through the cerebrospinal fluid from there. There has been quite a bit of attention devoted to the mechanisms resulting in low cerebrospinal fluid sugar, and they point out that malignant cells have been shown to have abnormal carbohydrate metabolism with accelerated anaerobic glycolysis in vitro. Another question is whether there is a block in the glucose transporting mechanism from the blood to the spinal fluid. The speculation now is that glucose is carried from blood to spinal fluid by specific transport mechanism. Dr. Fisherman has demonstrated that this transport mechanism has some stereo specificity and saturation level; that is, beyond a certain maximum level in the blood, the transport mechanism does not work regardless of how high the blood sugar goes. That can work in reverse, too. That is, glucose injected into the spinal fluid will appear in the blood. So, one mechanism for this low spinal fluid sugar would be an actual blockage of this transport mechanism by the malignant cells.

In terms of the clinical findings, the disease can be suspected in those individuals who have a history of neoplasia, who have a rather rapid onset of decreased consciousness, mental symptoms, meningeal signs, frequently visual findings, presumably because of the neoplastic material around the optic nerves. Cranial nerve palsies are extremely common, as they are in any granulomatous meningitis, as are signs of increased pressure. Radiculopathies are not uncommon. These, plus the spinal fluid with a moderate number of white cells (particularly mononuclear cells), very frequently a high protein (although this patient did not have a high protein) and a low sugar are almost diagnostic of some type of granulomatous meningitis, and one can only guess as to which one it is. Of course, the possibilities are tuberculosis; fungal diseases, particularly torulosis; malignancy; or sarcoid. Blood in the spinal fluid can give rise later to such spinal fluid findings, but, of course, without the clinical findings. In the absence of fever, one would tend to rule out tuberculosis. Ordinarily torulosis has a less rapidly progressive clinical course. It is a much more indolent disease, so that one can put meningeal carcinomatosis fairly high on one's list of potential diagnoses with this kind of clinical picture.

Dr. Kepes: I think that if some of those mononuclear cells are examined on a "Pap smear" rather than in the usual way to look at spinal fluids, it may be possible to pick up some of them being malignant. Maybe a good adjunct would be to use a PAS or mucus stain on those spinal fluid sediments because that might again show us a few signet ring cells. It may not make too much difference in the prognosis of the patient, but at least we might save the patient from a series of Amphotericin therapy, in case Torula is suspected. Any comments about this case?

Question from Audience: John, I was wondering. Did you do a PAS or mucicarmine stain?

Dr. Kepes: Mucicarmine. Yes, it was positive. The main point for this being carcinoma rather than Torula is that these droplets are within a cell that had a regular nucleus or, in other words, a human cell in a "signet ring" shape. Of course, it is possible to have one or more Torula in a histiocytic phagocyte. In that situation, you frequently get a few multinucleated cells, too, as is usual in granulomatous processes, and you should find a few Torula free. But in our case, each and every droplet was inside a cell that had one single nucleus pushed to the periphery, and the fact that these cells produced acinar structures is something you would not find in a case of torulosis.

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Case # 15. Vascular Meningioma (With Lipoblastic and Myxoid Changes)

Dr. Kepes: A seminar such as this would not be complete in the histological sense, at least, if we did not have a case like Case #15, because, clinically, this case presented no problems whatsoever and those among us who are clinicians might wonder why we included it at all.

A 67-year-old white man was admitted at Kansas University Medical Center on Oct. 30, 1962. In March, 1960, he had a seizure involving the left side of his face, which was followed by unconsciousness for a half hour. He had four such episodes. In March, 1962, he developed tremor of the left arm and, later hemiplegia. In September, 1962, he developed severe headaches on the right side.

On admission, the patient was unable to walk due to weakness of the left side. The left side of his face also was weak and there was left hemihypesthesia. Reflexes were equal except for unsustained ankle

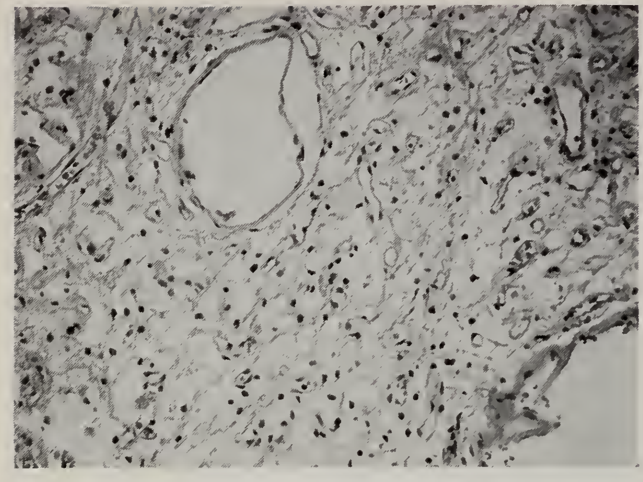

Fig. 1 In this area of the tumor, only a meshwork of fibers, empty spaces and a few blood vessels are seen.

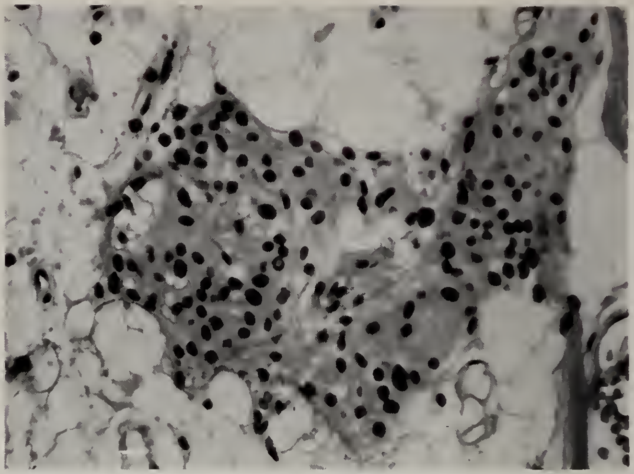

Fig. 2 In a few areas, sufficient condensation of tumor cells is seen to permit recognition of meningothelial cell clusters.

clonus on the left. A brain scan and arteriogram showed a right parietal tumor, for which he was operated on.

We have both the scan and the arteriogram here. You do not have to be a great neurosurgeon to detect that there is an increased vascular stain in the parietal area. In the brain scan, I think there is an increase in the take-up of the radioactive material. Surgeons found a well-circumscribed tumor mass which they removed.

It is mostly a loose lesion. These areas look like myxomatous or maybe fatty areas and a lot of blood vessels with some more indistinct groups of cells in between, but the looseness predominates (Fig. 1).

In the next slide, this area has really no diagnostic features about it for the histologist. Here we have a number of blood vessels and rather indistinct cells in between. Most of them have a clear cytoplasm and nonmalignant-looking round, evenly stained nucleus. This could be an angioma or just about anything.

Now, this area shows sclerosis. These are blood vessels again, but the wall shows quite a bit of basal membrane thickening and this whole area is simply "sclerosing away." It does not tell us anything about the nature of the tumor, but you may wish to call this an angioma because all it has is blood vessels and some loose tissue in between. This slide shows an area that could be called a xanthoma or a lipoma. In addition to the blood vessels, there were a lot of foamy cells and, again, they do not look malignant. Both the mucus stain and the fat stain were positive in this tumor in various areas.

Some of the cells have strange protein droplets in them which are very similar to those seen in some tubular changes in the kidney; hyaline droplet degeneration of renal epithelium. This material is strongly PAS positive. There are a few more solid clusters, and the point I would like to make is that you should look for those solid clusters because they may reveal the true nature of the tumor. Here they resemble epithelial cells with a little variation in the nuclei. If you look hard enough, you will find that there is some whorl formation and this, indeed, is a meningothelial meningioma that has lipoblastic and myxomatous changes. There is nothing peculiar in the gross appearance of such a tumor except that maybe it is a little bit softer than usual (Fig. 2).

The clinicians look at us in amazement and say, "Why don't you diagnose this right away when clinically it is simply a meningioma? No question about it." But, for us, it isn't so simple because there are ony a few areas that enable us to recognize this as a meningioma. The rest of it is degenerating.

The last picture on higher power shows you again how the solid core is present to help us in the diagnosis and how those fatty and vacuolated cells are peeling off from the periphery. If you get something like this for a frozen section, it may look like an astrocytoma with the stellate cells and the mucoid material. That can be a terrible diagnostic mistake to make because an astrocytoma, even of a low grade, is usually a fatal tumor and a meningioma is not.

Diagnoses submitted by mail:

Meningioma	12
Angioblastoma	4
Astrocytoma, cystic degeneration	2
Oligodendroglioma	2
Organizing subdural hematoma	2

Most people properly called it meningioma, but there are four angioblastomas. These do occur, but would be unusual in the parietal lobe. Astrocytoma with cystic degeneration was submitted. This is a potentially dangerous diagnosis to make, as outlined above. Oligodendroglioma . . . well, probably because of those clear cells. Again, this would be a glioma, which ultimately usually kills the patient, and it is an unwarranted, severe and harsh prognosis for this patient. It is interesting that someone thought this might be an organizing subdural hematoma. Clinically, it was not; it was a circumscribed tumor mass. Those meningothelial islands that we saw were against this diagnosis. Besides, there was no great amount of hemosiderin or other features of old hematoma. The vascular areas, of course, could suggest organizing granulation tissue.

This case was so obvious to the clinicians that Dr. Ziegler decided he would say nothing about it.

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Case # 16. Infantile Subacute Necrotizing Encephalomyelopathy (Leigh's Disease)

The patient was a white girl, aged 3 years and 11 months, who was admitted to the Pediatric Department of Kansas University Medical Center for evaluation of a feeding problem and developmental retardation. The patient was the first child of an Rh negative mother and an Rh positive father and was delivered after 41 weeks of gestation without complication. The birth weight was 7 lb 6 oz. Coombs' test was negative on cord blood and there was no abnormal jaundice in the neonatal period. Development was normal up to six months; after that, the development became slow. She began talking and walking between 18 months and two years of age. During the month prior to admission, she regressed to mumbling sounds.

On admission, she appeared somewhat malnourished and apathetic. She showed an unsteady, wide-based gait and symmetrically reduced tendon reflexes. There was slight nystagmus on lateral gaze in either direction, but the ocular fundi were essentially normal.

Routine laboratory findings were normal. The cerebrospinal fluid contained 18 mg% protein and 99 mg% sugar. She developed respiratory distress accompanied by hypotension and unresponsiveness and died quietly 24 hours later.

Autopsy showed extensive atelectasis, early acute bronchopneumonia of the lungs and slight fatty metamorphosis of the liver. The brain weighed 950 gm and appeared normal externally. On sectioning, reddish-brown spongy focal lesions were seen symmetrically in the thalami, subthalamic nuclei, red nuclei, dentate nuclei of the cerebellum and the inferior olivary nuclei of the medulla oblongata.

Dr. Kepes: I have a few gross pictures on that for you. This is the midbrain with cleft-like areas of destruction in the red nuclei on both sides. Next is the hypothalamus, and there are changes in the subthalamic nucleus of Luys on both sides. Again, there are areas of yellowish-brown discoloration with some spongy degeneration. These are the dentates of the cerebellum. Again, symmetrically, we have a reddish-brown discoloration of the dentate with some moth-eaten appearance, that is, a defect on both sides, a spongy defect. There is nothing wrong in the cortex or in the white matter. We only see symmetrical areas of degeneration and sponginess in the subcortical gray matter.

This diagram shows where the lesions were in this little girl. There were foci in the thalamic area in the subthalamic nucleus and midbrain. Your slide is from the middle of the medulla oblongata, and there are rather widespread changes involving mostly the inferior olives but, also, some areas of the tegmentum. There also were areas of demyelination in the spinal cord. So, you have a rather widespread disease and the types of lesions you find are listed here. Some of the lesions are microcystic spongy changes (Fig. 1) with a lot of capillary proliferation. Some are with small hemorrhages. Then, there is gliosis and, in some areas, demyelination.

This is the spongy change involving both gray and white matter. You see some surviving neurons in the middle of the spongy areas. This reminds us very much of Wernicke's disease. This is what the mammillary bodies look like in that disease with spongy degeneration and surviving neurons in the midst of all of the sponginess. However, I would like to stress that the mammillary bodies were perfectly normal in this child.

This is a myelin stain which shows focal spongy demyelination. In addition to the sponginess, there is a proliferation of capillaries and, sure enough, that looks like Wernicke's disease, also. Capillaries do proliferate in a thiamine deficiency. Here again, this is the inferior olive. All these nerve calls are present here and they do not seem to be bothered

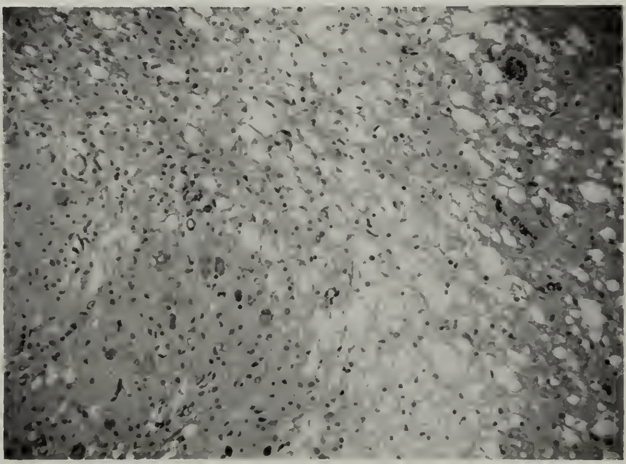

Fig. 1 Area of inferior olive. Loss of myelin near the olive creates a spongy appearance of white matter.

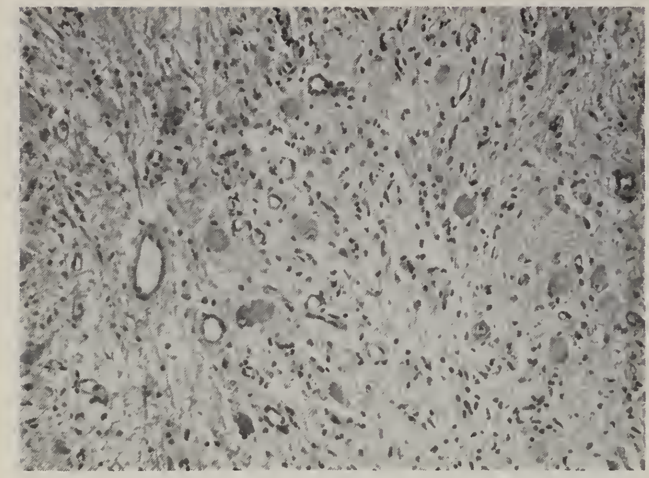

Fig. 2 Inferior olive. Increased number of glial cells and capillaries are seen among relatively well-preserved neurons.

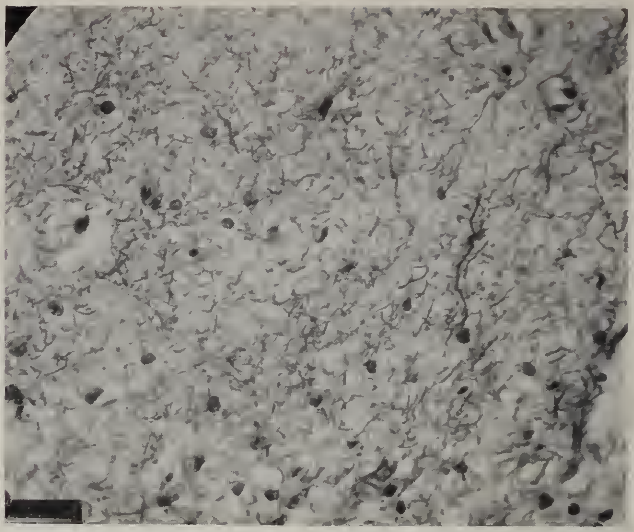

Fig. 3 Area of dentate nucleus. Marked fibrous gliosis (Holzer stain).

too much, and in between, there are many newly formed capillaries (Fig. 2).

This higher power view shows three good nerve cells and a lot of capillaries; some are filled with red blood cells and swollen endothelial cells, so this increased vascularity is to be remembered. In addition, there is gliosis (Fig. 3). This is a Holzer stain to show the glial fibers emanating from the astrocytes.

Finally, there are the foci of hemorrhages. These are weak-walled blood vessels and they bleed easily, much as in Wernicke's disease.

Diagnoses submitted by mail:

Leigh's disease	6
Metachromatic leukodystrophy	2
Late effects of kernicterus	4
Multiple sclerosis	2
Spino-cerebellar atrophy	2

These are the diagnoses we received. Leigh's disease is the correct diagnosis. I am glad it was picked up by a number of people, and I will refer to the full name of this entity in just a minute. Metachromatic leukodystrophy was submitted by some. We do not get much vascular proliferation in any of the leukodystrophies; furthermore, these changes were mostly in the gray matter. Some thought this to be the late effects of kernicterus. This is very significant because this patient did have an Rh positive father and an Rh negative mother. However, it would seem to those who have examined cases of late kernicterus that although there might be a "lucid interval" after birth before the signs begin to show up, those patients do not deteriorate progressively and relentlessly as in this particular condition. There might be some permanent defects that become more manifest as the child grows up and further functions are supposed to make their appearance, but this child, as you notice, has lost certain abilities that she already had, e.g., she was speaking and she was reduced to a mumbling vegetable. Multiple sclerosis was submitted. I believe the child was a little too young for that. Finally, cerebellar atrophy was diagnosed. There are two forms of that, familial and sporadic, but they show only degeneration and no vascular proliferation or hemorrhages.

This patient had Leigh's disease or subacute necrotizing encephalomyelopathy in infants; juvenile cases also have been reported. There are not too many cases, about 130 have been reported so far. Leigh reported her case in 1951 and she was impressed by the resemblance to Wernicke's disease. She saw the vascular proliferation, the small hemorrhages and this peculiar spongy state in which the nerve cells are surviving. This is important; it is the same feature you find in Wernicke's disease. But she also noticed that the mammillary bodies were intact and they are almost always involved in Wernicke's disease. Nevertheless, she figured that maybe there is some thiamine deficiency in these babies. This could not be substantiated, however. Some of these babies are properly nourished, and they certainly are not alcoholics, so it was postulated that maybe they cannot utilize thiamine.

A lot of biochemical research has been done on Wernicke's disease and the result (mostly due to the work of Dr. Dreyfuss in Boston) is that in Wernicke's encephalopathy, you have a deficiency of the enzyme transketolase. The presence or absence of transketolase was looked for in these babies and it was found to be normal. So, that rules out Wernicke's disease almost by definition. Furthermore, thiamine values (vitamin B1 levels) are normal in this disease, but they do not have thiamine triphosphate so we are not too far from the essence of Wernicke's disease. They usually have metabolic acidosis, high serum lactate levels, a severe thiamine triphosphate deficiency in the brain and normal transketolase. I would like to mention that there is such a thing as Wernicke's disease in infants. It has been reported and it is not different from the adult form of Wernicke; it does involve the mammillary bodies and is associated with thiamine and transketolase deficiency. Thus, it is not the age that makes this a different entity but the fact that some of the basic features are different. About 50% of these cases are familial. More than half of the patients develop the disease before the age of one year, but patients as old as 60 years have been reported in the literature.

Dr. Ziegler: Most of the following is from the manuscript of Drs. Jellinger and Seiteilberger. I imagine that those infants who had Wernicke's disease were not alcoholic.

Dr. Kepes: I do not know if you in the audience are aware of the fact that the first patient Wernicke described was not an alcoholic at all. That patient had a stricture of the esophagus due to ingestion of sulfuric acid. She could not feed herself properly and developed inanition and Wernicke's disease.

Dr. Ziegler: I will add a few points that Dr. Kepes has not mentioned. He did mention the age of onset which is characteristically before the end of the first year in life. However, there have been those with the onset up to the age of ten and there have been a few cases in which the children have survived for several years. The course was that of gradual onset of feeding problems in the infants and lagging growth. Also, some of these children are retarded from birth. The problem characteristically begins at the second year of life with regression in development and then there are later signs of diffuse brain involvement with spasticity and quadriplegia.

Brain stem signs are very striking, as one would expect from the pathology. There are a few very acute forms of the disease with the children having died within a matter of days and, even, within a day or two after the onset of the illness. There is certainly nothing really specific about their course. The cerebrospinal fluid protein is usually normal, although in some cases the protein has been elevated up to 100 mg% and the biochemical findings to which Dr. Kepes has referred; there is lactic acidosis with depression of plasma bicarbonate level and the transketolase is normal.

The differential diagnosis, of course, is difficult in these children. There are many things that can cause a rather gradual regression in development, such as a hypothalamic tumor, which we mentioned in the discussion of other cases. Cerebral lipid storage disease, Tay Sach's disease and Niemann-Pick's disease are to be considered; leukodystrophy occurs at this age, and subacute encephalitis also is a possibility. We have, of course, specific ways to diagnose these conditions. The lipid storage diseases can now be diagnosed by rectal biopsy; subacute encephalitis usually has a characteristic spinal fluid and may have a characteristic EEG abnormality. Infantile neuro-axonal dystrophy also occurs at this age; Hallervorden-Spatz disease is usually characterized by involuntary movements.

The disease is of unknown etiology. I think that Dr. Jellinger's final conclusion is that, as of the present time, it would seem that, inasmuch as 50% of the cases are familial, it does involve the vitamin B complex somewhere in its pathway, and this may be a genetically determined error in metabolism.

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Case # 17. Hemangiopericytoma of the Meninges

Submitted by Tom Hiratzka, M.D.
Department of Pathology, Wesley Medical Center, Wichita, Kan.

Dr. Kepes: The next case originated in Philadelphia. Dr. Hiratzka from Wesley Medical Center in Wichita was kind enough to send the slides to us. Originally, I received a slide on this case from Dr. Gonatas who is the neuropathologist at the University of Pennsylvania.

This patient was a 22-year-old white woman. She had been operated on at the University of Pennsylvania for a foramen magnum "meningioma," but, at that time, it was suspected that the lesion might not be a meningioma. Following her transfer to Wichita, she developed a left subdural mass lesion which was first thought to be a hematoma, but which turned out to be a hygroma at multiple trephinations. She failed to improve and showed signs of increased intracranial pressure. Repeat carotid angiograms confirmed a bilateral subfrontal extracerebral mass having many gross characteristics of a meningioma. Operation showed a soft friable tumor involving the anterior fossa bilaterally, the carotid, the middle and anterior cerebral arteries and the optic nerves. It was the impression of the neurosurgeons that the primary mass was probably subfrontal and the lesion in the foramen magnum area was a metastasis. She died last July shortly after operation.

At autopsy, residual tumor involved not only the meninges but eroded the bony structures of the base of the skull and invaded the orbit, surrounded the carotid arteries and filled the cavernous sinuses on both sides.

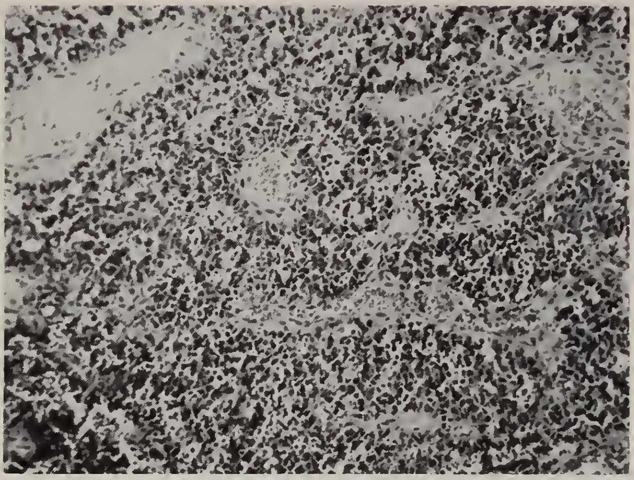

Fig. 1 Highly cellular monotonous tumor made up of small, dark cells.

Dr. Kepes: This is obviously a highly cellular tumor and rather monotonous at first inspection. When I first looked at this slide, I thought that maybe it was a medulloblastoma, but it would be unusual to have it in the location of a meningioma. Besides, I was wondering about those blood vessels and whether or not they might be part of the tumor. We asked for a reticulin stain and it was mostly positive. But staying with the H&E for a minute, you can see it is a highly cellular, rather monotonous tumor with a number of blood vessels (Fig. 1).

There was a little bit of dura attached to the tumor and you could see small clusters of this neoplasm rather indiscriminately invading the neighboring dense fibrous tissue. Here you have a blood vessel in the center, and there is a very close proximity of the tumor cells to the wall. Some are surrounding it in a rather radiating fashion, but there are no foot processes such as you would see in an ependymoma and many of the other spaces that first appeared as just slits in the tumor are really sinusoid-like blood vessels (Fig. 2).

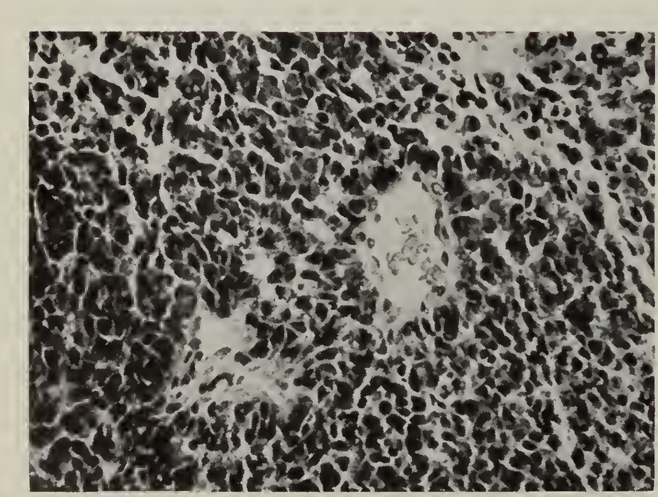

Fig. 2 This area suggests the origin of the tumor cells from the pericytes of small blood vessels. The endothelium is not neoplastic.

This is another area in which this close relationship of the blood vessels and the tumor cells can be observed. The nucleus is very close to the basement membrane; it is not like an ependymoma where you have a nucleus free cuff around the blood vessels containing the cell processes. Here, the nucleus is part of the wall and, actually, I think these are hemangiopericytes that form this tumor mass. You can see a longitudinal section of the capillary; the endothelium is not neoplastic. There is the basement membrane, and immediately surrounding it are closely packed cells that are really forming part of the wall of the capillary.

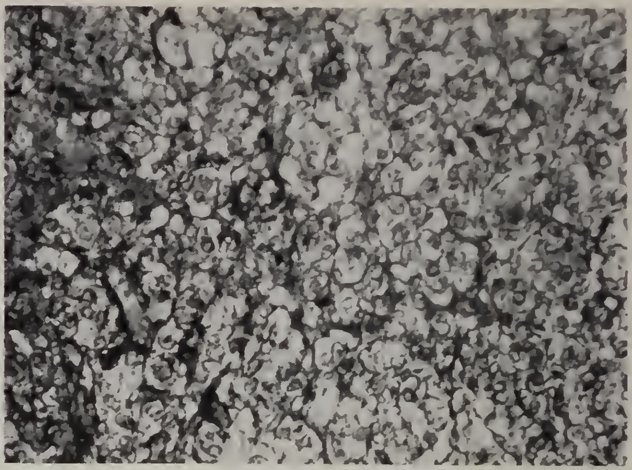

Fig. 3 Reticulin stain shows individual tumor cells being enveloped by reticulin fibers.

This reticulin stain shows a rather dense network of reticulin fibers surrounding individual tumor cells in most areas (Fig. 3). According to Kernohan, there is no other tumor in the central nervous system that has such an intimate relationship between reticulin and tumor cells as in hemangiopericytomas.

Diagnoses submitted by mail:

Malignant ependymoma, neuroepithelioma	6
Medulloblastoma	4
Cerebellar sarcoma	2
Lymphosarcoma	4
Glomus tumor	2
Perivascular sarcoma	2
Angiosarcoma	2

Let us look at the submitted diagnoses. Because of the vascular spaces that appeared like canaliculi, some called it a malignant ependymoma or neurepithelioma, and others called it medulloblastoma because of the dark cells. Cerebellar sarcoma was diagnosed. It was not in the cerebellum, really. Lymphosarcomas? Well, the cells are not actually lymphocytes and there is too close relationship to the blood vessels. Glomus tumor, I can understand, and perivascular sarcoma would probably be a good diagnosis. Angiosarcoma, I do not believe would be quite appropriate because the endothelial cells are not part of the malignant process; it is outside the capillary where the tumor really begins.

Our diagnosis on the little biopsy we got from Philadelphia was hemangiopericytoma of the meninges and the autopsy confirmed this diagnosis. Also, the way it behaved, by infiltrating the base of the brain and getting into the orbit and other areas, is against the neurectodermal tumor. This is not a very common tumor, but it has been described. Probably the best place for you to look up hemangiopericytomas of the central nervous system is in Kruse's article of 1961 in *Neurology*. He reviewed all the cases up to that date and he added eight cases of his own when he was at the AFIP. They all looked like this—highly cellular tumors with sinusoid areas in them; innocent endothelial cells but malignant pericytes. Some invaded the brain, but others remained in the meninges. They invade the surrounding tissues and have a highly malignant course although they are somewhat radiosensitive. Histologically, they are not different from hemangiopericytomas elsewhere.

Cushing and Eisenhardt, in their work on meningiomas, also described this tumor, but they called it an angioblastic meningioma. It does not have the usual features of meningiomas; there are no whorls or other structures that you would associate with meningiomas. I think it is a hemangiopericytoma which happens to be in the meninges.

Dr. Ziegler: I think there is not a great deal to comment on here. Clinically, there is nothing specific to this lesion. Most of you know that one of the favorite sites for meningioma is the subfrontal region. When they are comparatively benign in this area, one of the characteristic syndromes is the Foster Kennedy syndrome in which one optic nerve becomes atrophied because of the direct pressure of the tumor in that locality at the same time the patient develops increased intracranial pressure, which produces papilledema in the opposite eye. It is probably just as important to keep in mind that benign tumors are common in this area, that they do produce decreased visual acuity, frequently without any other signs, and, therefore, it is really imperative to suspect it in any patient who has developed impaired visual acuity and, particularly, to check the sense of smell.

If there is any question at all, do whatever is appropriate to rule out meningioma in this area. I think apart from that there is nothing that we can say that is specific to this case. These patients usually are a little bit younger than most of the meningioma patients. She was a 22-year-old woman and the course was very malignant, unfortunately.

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Case # 18. Subependymoma (Glomerate Astrocytoma)

Submitted by O. Dale Smith, M.D. and Mark Ost, M.D.
Baptist Memorial Hospital, Kansas City, Mo.

The patient was a 41-year-old man who had a history of intermittent headaches and pain in the upper neck dating back to two years prior to his last admission. In 1968, anterior fusion of the cervical vertebrae was performed to alleviate the cervical pain. The head and neck pain persisted and he developed ataxia with a broad-based gait. He had normal visual acuity, but he had early bilateral papilledema and a large blind spot on visual field examination. He had a horizontal, mild, intermittent "jerk-type" nystagmus. A pneumoencephalogram showed herniation of the cerebellar tonsils and no filling of the ventricles. The ventriculogram showed symmetrical hydrocephalus of the lateral ventricles, enlargement of the third ventricle and no filling of the fourth.

Exploration of the nuchal area showed a sausage shaped tumor mass extending down on the dorsal surface of the cervical cord, with its superior attachment at the level of the obex. The doctor stated that the main mass of the tumor was actually inside the fourth ventricle with some extension downward. The tumor was removed after splitting the cerebellar vermis. The left posterior inferior cerebellar artery was involved in the tumor and this led to postoperative vascular complications and the patient's death.

Dr. Kepes: I thought this would be a histologically simple case and was surprised to get a greater spread of diagnoses in this case than in any of the others. What you see here is a moderately cellular tumor. The most characteristic feature is that the cells are not evenly distributed. You will find areas that have hardly any cells and you find some groups of cells clustered together, so this uneven, spotty appearance of the nuclei in the tumor is really what characterizes it under low power (Fig. 1). I realize that the rhythmicity of this alternation between cellular and noncellular areas created the impression of this possibly being palisading. But, it is not. These are clusters rather than linear groups of cells.

Here are large areas with hardly any cells, but mostly just processes. Then, you have these clusters of nuclei which are quite benign appearing. Mitotic figures are not seen; some of the cells surround blood vessels. In the next slide, these look like mature astrocytes in a way. In other areas, however, this clustering is a little unusual for astrocyte. This is why the term "glomerate astrocytoma" has been selected for this particular tumor by Boykin and his coworkers (Fig. 2). However, they are not astrocytes in the usual sense of the word.

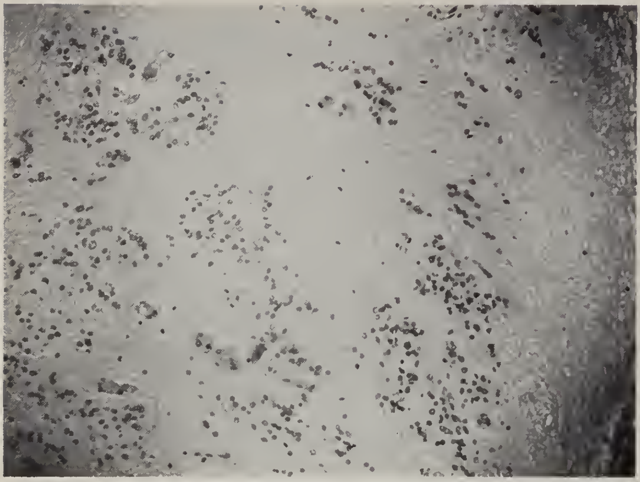

Fig. 1 Clusters of small tumor cells are seen in a fibrillary matrix.

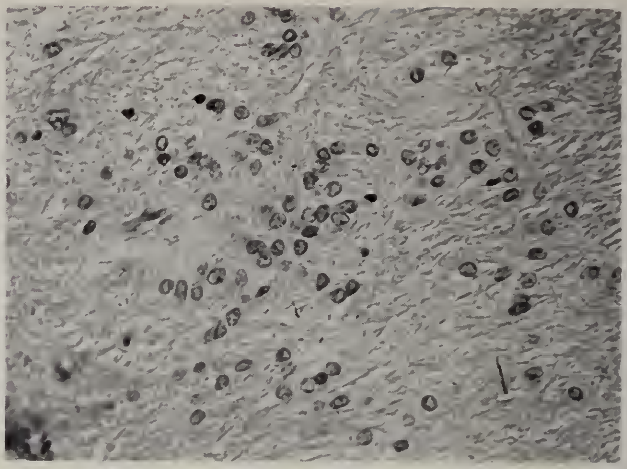

Fig. 2 Higher power shows well-differentiated glial nuclei with little or no pleomorphism and no mitoses forming aggregates amidst glial fibers ("glomerate arrangement").

This is from another patient who had one of these tumors. It usually appears as an incidental finding at the postmortem, with a small cluster of tumor cells sitting in the fourth ventricle attached to the edge here of the obex. This particular case helps us determine the nature of this tumor because it looks exactly like a "glomerate" tumor with clusters of cells. If you look at it further, you will find that this area changes into a totally different pattern, but the nuclei are the same. Here a more cellular and perivascular arrangement is more obvious. It is, indeed, a cellular ependymoma. Unlike the hemangiopericytoma of the previous case, the nuclei maintain a distance from the capillary. Why? Because the cellular processes go down to the capillary. So, part of this tumor is ependymal; the rest "astrocytic." It is derived from subependymal cells which, perhaps, vaguely "remember" that originally they came from the ependyma, but they became astrocytic in their differentiation. These are the tumors we call "subependymomas."

Now, what are subependymal cells? Some people argue that they are simply astrocytes. The slide that I showed you indicates that that is not true. Astrocytes would not assume a typical ependymoma pattern in any part of the tumor. So this is sort of a hybrid cell, which is half astrocyte and half ependymal cell, originating from the ependyma but differentiating towards astrocytes. Why is this lesion important? It is a very benign lesion and often an incidental finding at autopsy. When I was in Rochester, Minn. in 1957, my insurance agent, who sold me a life insurance policy himself, had had a subependymoma removed from his fourth ventricle at the Mayo clinic in 1955. That was 15 years ago and he still writes to me regularly. He is doing well and I think he is completely cured. This is one of the few brain tumors that can be completely cured. If it is left untreated, however, it may grow to a large size. This is the point that I want to emphasize—not all of them are incidental findings at autopsy. A number of them slowly but steadily grow and usually they make their way out of the fourth ventricle and become craniospinal tumors. This is why this patient was bothered by so much neck pain which necessitated fusion of his vertebrae, etc.

I would rather leave the discussion of this to Dr. Ziegler. I just want to show you the interesting spread of diagnoses here.

Diagnoses submitted by mail:

Neurolemmoma, plexiform neuroma	12
Astrocytoma grade 1	6
Ependymoma	2
Subependymoma	2

Some diagnosed this as neurolemmoma or a plexiform neuroma. I am sure their reason was this alternation of nuclei with nucleus free areas. However, this wasn't the usual linear palisading of neurolemmomas but, rather, was clusters of cells. This is the reason some authors prefer to call this lesion a glomerate astrocytoma rather than subependymoma. Astrocytoma grade I was diagnosed, and I would agree, except that this is probably more benign than the usual grade I astrocytoma. Ependymoma was submitted, as was subependymoma, which I think is probably the best diagnosis. This tumor was first described by Sheinker in 1944 and still is identified by this name in most of the literature.

Dr. Ziegler: I will make a few comments on the diagnosis of lesions in this area. The diagnosis of lesions around the foramen magnum and in the very high cervical region probably presents as many difficulties as lesions anywhere in the nervous system. The reason is that lesions in this area will tend to spare the portions of the cervical enlargement of the cord and those cervical nerve roots which give striking motor, sensory and reflex signs that frequently enable us to diagnose segmental lesions in the lower portion of the cervical cord. These are absent in the high cervical lesions. On the other hand, these lesions are frequently low enough so that the cranial nerves are spared or may be involved only minimally. What one finds are groups of symptoms, which are frequently characterized by a paucity of neurological signs. Of course, the pain in the head and neck is particularly characteristic of lesions in this area, but so many patients have pain in the head and back part of the neck that physicians are tired of seeing patients with this complaint. That is one of the reasons for the difficulty.

The neurological signs to look for, particularly, are those of sensory disturbances of the cervical segments. There is disturbed sensation in the back of the head and in the neck region; disturbances in the lower cranial nerves, 10, 11 and 12, particularly 11 and 12; weakness of the sternomastoid; disturbances of the tongue; and dysphagia. Sometimes, atrophy or fibrillations of the tongue can be seen. Also, at times, there will be some weakness in the posterior neck muscles, but not frequently. There really are no reflex signs that are of help in finding lesions in this area. If the lesion involves the lower brain stem to any degree, the patient can have some nystagmus because the medial longitudinal fasciculus does descend to the upper cervical segments and involvement of this fasciculus will give nystagmus. I have recollections of lesions in this area. One woman, whom many of you here will remember, we obtained from the Osawatomie State Hospital, where she was hospitalized. I must say, in all fairness, not because of this. She was complaining of depression and nervousness, and the family preferred to have her hospitalized. She did have a great deal of headache. When I saw her there, she had some ataxia, but her major complaint was severe pain in the occipital region and neckache. Her only neurological finding actually was mild to moderate ataxia. She turned out to have an Arnold-Chiari malformation of the medulla and high cervical cord. After operation, she was dramatically relieved of her head and neck pain.

I remember another case that was even more unusual. A middle-aged man complained of severe neck and posterior head pain. There were no neurological signs and the only finding that gave us any clue was that the spinal fluid was slightly xanthochromic and had a markedly elevated protein. Because of this, we thought he was having some leakage of blood into the spinal fluid. He had a complete angiographic evaluation, all of which was negative. Subsequent spinal taps revealed a persistence of this elevated protein and xanthochromia, but, again, we had no neurological signs. It did not occur to us at this time to do a myelography because, as I say, there were no signs of cord disease. He was subsequently hospitalized and, I believe, at that time signs of cord disease appeared. He had a high cervical lesion which was an ependymoma that extended through the foramen magnum into the brain stem and into the posterior fossa. In summary, this area is very difficult to diagnose. I think one of the clues is that the patients have severe and unremitting posterior head and neck pain, particularly with a lot of guarding and splinting of the neck without an obvious arthritic cause. As Dr. Kepes says, it obviously is important to make this diagnosis as early as possible.

Dr. Kepes: There is one other important point about this tumor. It is the reason why I do not like the term ependymoma or astrocytoma because it does not infiltrate the brain. It usually has only a superficial attachment to the ventricular wall, and that makes surgical removal fairly easy. It may fill the fourth ventricle, and then it grows out through the foramen magnum and down on the dorsal surface of the cord, but not inside the cord. So, even that area can be resected fairly easily without even touching the cord. Because of pressure, however, it may be plastered against the cord. This is quite different from an ependymoma, since an ependymoma in the cord would be inside the parenchyma. An astrocytoma of the cord and medulla obviously would be intrinsic and inoperable, also. This lesion, apart from a rather tenuous attachment to the fourth ventricle, is usually extracerebral and can be treated as such.

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U NOV

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ISSOURI GENERAL ASSEMBLY ENDS SESSION

Advisory Council on Alcoholism and Drug Abuse Approved; Governor May Call Special Session to Regulate 'Blues'

Physicians in Missouri had a most successful legislative session. The Missouri General Assembly concluded its floor action at midnight on April 30. A complete legislative report will be published in August.

The substitute Senate bill that would have provided for state regulation of the "Blues" under the Division of Insurance remained in conference committee. Immediately after the session, the Governor mentioned that he might call a short special session in September and possibly include a bill to regulate the "Blues" in his call for the session.

House Bill 1255, which added rubella and rubeola vaccine to the mandatory list of immunizations and vaccinations for school children, was signed by the Governor on April 28.

The Governor also signed House Bill 1087. This would establish a 32-member Advisory Council on Alcoholism and Drug Abuse. The main duties of this Council are to study all drug use, abuse and dependency or addiction, including methods and facilities for care; custody and rehabilitation of abusers or addicts; and also to promote meetings and programs, especially among young persons; and to recommend methods, means and procedures to be adopted to curb drug use, abuse, dependency or addiction.

It is our understanding that a large grant from the federal government is available to this Council to be used in carrying out its activities.

Senate Bill 609, relating to chiropractic advertising, was also passed this session. This bill makes it illegal for chiropractors to advertise or attempt to attract patronage in any unethical manner. This would include advertisements by individual chiropractors or chiropractic clinics. Also they could not attempt to attract patronage by offering free examinations, free X-rays or free consultation, and cannot attempt to attract patronage in any manner which disparages, discredits or attacks other healing arts or sciences.

Other bills of interest that have not been previously reported on this page include a $100,000 appropriation to the Division of Health for a sickle cell disease program and an increased appropriation to the Division of Welfare for benefits under Title XIX (Medicaid) of the Social Security Act.

The appropriation from general revenue for fiscal year 1972-1973 is $32,270,340. This represents an increase of $3,436,667. It is anticipated that federal matching funds for fiscal year 1972-1973 based on this increased appropriation will be $4,190,948, for an anticipated total appropriation of $70,321,072. For fiscal year 1971-72, the total state appropriation and the anticipated federal matching funds are expected to be $62,693,457. This would amount to a total anticipated increase of $7,627,615 for fiscal year 1972-73.

ROYAL O. COOPER NAMED ASSISTANT EXECUTIVE SECRETARY

Royal O. Cooper

MSMA Executive Secretary Raymond McIntyre has announced that Royal O. Cooper, who has been named Assistant Executive Secretary of the Missouri State Medical Association, assumed his new assignment on May 1.

Cooper has served as Executive Assistant and Field Secretary since he joined the MSMA headquarters staff in January, 1969. In his new appointment, he will assume additional administrative responsibilities and will continue as Field Director and in his work in the legislative field.

MSMA TO HAVE PERMANENT HOME

The MSMA House of Delegates at the 1972 Annual Session authorized the purchase of a suitable, permanent home for the Association in Jefferson City to be made with available funds without assessment to the membership. A contract has been signed for the purchase of property at 113 Madison. This is located directly across the street from the Governor's Mansion. An architect is preparing preliminary plans for remodeling the property into suitable offices. At a recent meeting of the MSMA Executive Committee, Dr. James Cope, Columbia; Dr. Charles Gulick, St. Louis; and Dr. John Matthews, Jefferson City, were appointed to serve as a building committee for the new MSMA headquarters.

MSMA
News

Editorial . . .

Healthy Report On Doctors

A report by the General Accounting Office listing about 200 Missouri physicians as "problem doctors" for suspected overcharges or overtreatment through Medicaid is no cause to discredit the state's medical profession.

The offending doctors represent about four per cent of the state's total physicians. And, as GAO observed, the Missouri Division of Welfare, under its efficient director, Proctor Carter, has an effective monitoring system.

On their own, Missouri physicians have taken steps to safeguard against overcharging and overtreatment.

Local medical society spokesmen say the danger of overtreatment does not exist in busy hospitals, where utilization committees keep close tabs on patients. There is more likelihood of a patient being turned out of a hospital sooner than he wishes, than there is of his being kept too long, the physicians say.

On the question of charges, the St. Louis and St. Louis County Medical Societies say their grievance committees are responsive to questions about fees and will tell those making inquiry whether a physician is in line with others.

The Health Care Foundation, with headquarters at 515 East High St., Jefferson City, Mo. 65101, has been set up by state medical and osteopathic associations specifically to answer charges of abuse. While not all doctors support it, organizers say it is intended to be a clearinghouse for any complaints.

On balance, Missouri's physicans appear to have earned a good bill of health as fair and honest practitioners.

(Reprinted from St. Louis Globe-Democrat)

C. C. SWARENS TO SERVE MSMA AS PUBLIC RELATIONS DIRECTOR

C. C. Swarens

C. C. Swarens, Jefferson City newspaperman, has joined the staff of the Missouri State Medical Association as Public Relations Director.

MSMA Executive Secretary Raymond McIntyre said that Swarens will work in communications with Association members and the news media, various organizations and agencies. He also will assist with legislative contact work.

Swarens came to the Medical Association from the position of managing editor of the Jefferson City News Tribune Co. He joined that organization in 1963 as sports editor, was named city editor in 1967 and assumed his managing editorship in September, 1970.

A native of Jefferson City and a graduate of the Jefferson City Public Schools, Swarens attended Lincoln University in Jefferson City and received his Bachelor of Journalism degree in 1966.

While attending Lincoln University, he served as assistant manager of a service station in Jefferson City and as sports editor of the News Tribune Company's morning newspaper, **Daily Capital News**. He was editor-in-chief of the Lincoln University **Clarion**.

He has been active in numerous professional organizations, including the Mid-America Newspaper Editors Association and the Associated Press Managing Editors Association.

Swarens is married and the father of two sons.

Missouri State Medical Association

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NOV. 11-18, 1972

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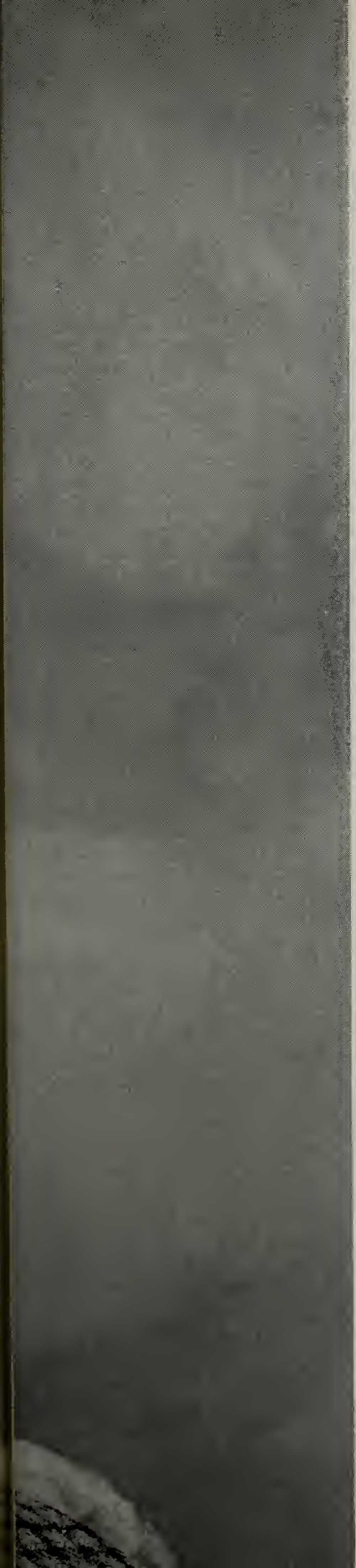
Final plans are now being made for the MSMA First Annual Cruise-Medical Seminar that will depart from Kansas City and St. Louis on November 11, 1972, for Miami. An excellent scientific program is being planned and approval for elective hours has been requested from AAFP. Additional information concerning this outstanding cruise may be requested from the MSMA office, 515 E. High, Jefferson City, Mo. 65101.



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In fact, there are no known contraindications in recommended oral doses other than it should not be given in the presence of frank arterial bleeding or immediately postpartum.

Although not all clinicians agree on the value of vasodilators in vascular disease, several investigators[1-4] *have reported favorably on the effects of isoxsuprine. Effects have been demonstrated both by objective measurement*[2,4] *and observation of clinical improvement.*[1,3] **Composition:** VASODĪLAN tablets, isoxsuprine HCl, 10 mg. and 20 mg. VASODĪLAN syrup, isoxsuprine HCl, 10 mg. per 5 ml. teaspoonful. **Indications:** *In cerebral vascular disorders,* for relief of symptoms due to vascular insufficiency associated with various conditions such as arteriosclerosis and hypertension. *In peripheral vascular disorders,* for relief of symptoms such as intermittent claudication, coldness, numbness, pain and cramping of the extremities—in the management of arteriosclerosis obliterans, diabetic vascular diseases, thromboangiitis obliterans (Buerger's disease), Raynaud's disease, postphlebitic conditions, acroparesthesia, frostbite syndrome and ulcers of the extremities (arteriosclerotic, diabetic, thrombotic). **Dosage and Administration:** In peripheral and cerebral vascular disorders—10 to 20 mg. three or four times daily. **Contraindications and Cautions:** There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding. **Adverse Reactions:** On rare occasions, oral administration of the drug has been associated in time with the occurrence of severe rash. When rash appears, the drug should be discontinued. Occasional overdosage effects such as transient palpitation or dizziness are usually controlled by reducing the dose. **Supplied:** *Tablets,* 10 mg.—bottles of 100 and 1000, and Unit Dose; 20 mg.—bottles of 100 and 500. *Syrup,* 10 mg. per 5 ml. teaspoonful—bottles of 1 pint. **References:** 1. Clarkson, I. S., and LePere, D. M.: Angiology *11*:190-192 (June) 1960. 2. Horton, G. E., and Johnson, P. C., Jr.: Angiology *15*:70-74 (Feb.) 1964. 3. Dhrymiotis, A. D., and Whittier, J. R.: Curr. Ther. Res. *4*:124-128 (April) 1962. 4. Whittier, J. R.: Angiology *15*:82-87 (Feb.) 1964.

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HARVEY H. PETTRY, *Columbia*

Medical Care in Rural Missouri: The Effects of Present Trends

One of the important population changes in the United States in the 20th century has been the migration of former farm and small town dwellers into urban areas. This migration is due to several factors, among them are (1) technological advancements in agriculture which enable a single man to do the farm work of the several required previously and (2) the greater economic and social opportunities of the city. Concomitant with the advances of technology in farming have been the advances of medicine. Scientific advances in the field of medicine are evident in the increased life span of Americans, the lower death rates from infectious diseases, reduced infant mortality rates and in the hospital facilities, which are becoming the center for the physician-patient consultation.

The advances in medical knowledge also are evident in the decreasing number of medical school graduates electing to practice medicine in the rural areas. Steeped for four years in lessons on all parts of the body, large percentages of graduates decide to specialize on one part rather than practice medicine on all parts. The medical school graduate becomes reluctant to move to a rural area where facilities are not sufficiently specialized to allow him full use of his knowledge. In addition, various family influences come to bear. The young physician has a desire for better educational facilities for his children than he believes rural towns offer. The lower economic level and lesser social and cultural life than those to which he is accustomed also discourage him.[1] The result of the decision not to move to the rural area, when magnified many times, has an effect on the sources of medical care already present in the rural area and on the care of rural residents receive.

Methodology

In determining the effect of the failure of new physicians to move into rural areas of Missouri, three factors must be defined. Medical care is the preventative, curative and rehabilitative aid which a person is able to seek and receive for his perceived ills. The primary sources of medical care are the doctor of medicine, the doctor of osteopathy and the general hospital. The doctors of medicine and of osteopathy to be considered are those recognized by their respective societies and licensed by the state. Although other sources exist, such as chiropractors and home remedies, they are considered substitutes. In the evaluation to be made later, it will be necessary to consider the sources of care in terms of some recommended ratio. The figure to be used is one physician per 1,500 population, the ratio used by the Missouri Division of Health and advanced by the United States Department of Health, Education and Welfare.[2] Numerous other ratios could be suggested. All ratios, however, assume two factors which are invalid: everyone's needs are the same and all physicians are the same.[3] A ratio of 66.6 physicians per 100,000 population also will be used. It is equivalent to and derived from the former ratio.

In considering a trend in the number of hospitals, those listed in the *Guide Issue of Hospitals* will be used, including those accredited and nonaccredited. However, Armed Forces hospitals will be excluded. As with the physician-population ratio, the hospital beds per 1,000 figure of 3.6 could evoke numerous questions. However, it represents a figure keyed to Missouri State Plan per requirements[4] and, thus, is applicable.

The population that will be examined consists of those individuals residing in rural counties. This concept deviates somewhat from the Census Bureau, Department of Labor's categorization of "rural" as being towns of 2,500 population or less or open country,[5] but it does set boundaries that facilitate comparison. This method has been used by members of the Department of Rural Sociology, University of Missouri, and involves exclusion of those counties containing a Standard Metropolitan Statistical Area (SMSA). In Missouri, this includes the following counties: Buchanan, Clay, Jackson, St. Louis, St. Charles, Jefferson and Greene. Additional counties of concentration of population and services exist and should be noted because they are not representative of the rural areas. Included as nonrepresentative are Andrew, Boone, Cole, Cooper and Pettis counties.[6] In the present study, the seven SMSA counties will be excluded.

A second criticism of the county basis is that political boundaries do not allow for socio-economic factors and do not reflect the true distance to medical facilities for some people.[3] However, the 20-county Regional Medical Program[7] also would not allow for these factors for some people.

Findings

Table 1 describes the trend in the counties for the various sources of medical care. Column I indicates that 52 counties had a decrease in M.D.'s and 36 counties had an increase for a total net change of –16. Column II shows that 31 counties had a decrease in D.O.'s and 36 counties had an increase for a total net effect of +5. Column III indicates that based on a physician/population ratio of 1/1,500, 34 counties in 1965 were below the recommended level. By 1970, the number had climbed to 47. Column IV shows eight counties as having no M.D. in 1965 and an additional four counties in 1970 lacking an M.D. Only Iron County lacked a D.O. in 1965 and 1970. (This information is not included in the table.) Column V indicates the 43 counties with no hospital in 1965. Column VI indicates the counties in which hospitals were built between 1965 and 1970. Column VII indicates the 44 counties below the recommended bed per 1,000 persons ratio and Column VIII indicates the 30 counties which had an increase in the number of beds between 1965 and 1970.

The following data are derived from Table 1:

Twenty of the counties below the recommended physician ratio in 1965 also had a decrease in the number of doctors of medicine between 1965 and 1970. A slightly different set of 20 counties below the recommended ratio in 1965 lost doctors of osteopathy between 1965 and 1970. Six counties were common to both of the above areas and are included in the total of 20. Of the 47 counties below the recommended ratio in 1970, 27 counties were repeats from 1965 and 20 counties were added to the list. Seven counties raised the ratio between 1965 and 1970. In 1965, 29% of Missouri's rural counties were below the recommended physician ratio; in 1970, there were 41%. Of 26 new hospitals built between 1965 and 1970, only one was built in a county that had no hospital in 1965. Ten of the new hospitals were built in counties below the recommended bed ratio. Ten of the 30 counties which increased the bed supply between 1965 and 1970 were below the recommended average in 1965.

After studying and comparing the effects of rural and urban population factors, the advances in medical knowledge and primary sources of medical care, patient needs and the impact of physician and hospital trends in rural areas, the author presents a student's ideas and conclusions regarding possible problems in rural health care. Mr. Pettry is a second-year student in the Health Services Management Program, University of Missouri Medical Center.

Major Trends

The physician trend indicates a decreasing number of sources in rural areas. The hospital trend is a stagnant building situation in areas of need, an increase in beds in some rural areas and, in both building and bed increases, a greater amount of activity in areas already possessing some facilities. If transferred to a county map of Missouri, the increases in facilities may be noted to occur near the large urban areas and near the secondary concentrations previously mentioned.

What is the effect of the trends in the sources of medical care upon the various areas? Obviously, the areas receiving additional physicians and hospital facilities are alleviating their shortages to some extent. What is the effect of the decrease in physicians and a stagnant or slow hospital facilities improvement situation on the level of medical care? Can the residents of the areas with inadequate sources of care be expected to receive sufficient care? In examining the trend toward fewer sources in some areas, it is desirable to consider the effect of the trend on both provider and consumer, since the actions and attitudes of both parties are influenced by the trend and, in turn, affect the medical care that is provided and received. In evaluating the effect of a trend on both provider and consumer, it is fallacious to state that, for example, fewer people visit physicians simply because they are farther away than previously. The utilization of medical care involves a complex intertwining of demographic characteristics. For a wealthy family with children, distance to medi-

TABLE 1

CHANGES IN PHYSICIANS, HOSPITALS AND NUMBER OF BEDS IN MISSOURI, 1965 TO 1970

County	*I* *Change in #MD* *65^6-70^2*	*II* *Change in #DO* *65^9-70^2*	*III* *Less Than 1/1500* *65-70^7*	*IV* *No MD* *65^6-70^2*	*V* *No Hosp* *65^6*	*VI* *New Hosp* *65-70**	*VII* *Below 3.6/1000* *65^4*	*VIII* *Increased # Beds* *65-70**
Adair	–	+				x x		x
Andrew	–	0	x 70		x			
Atchison	–	–	x 70					
Audrain	–	+						x
Barry	+	–	x 65			x		x
Barton	0	0				x		
Bates	+						x	
Benton	–	0	x 70		x			
Bollinger	–	0	x 65 x 70	x	x			
Boone	+	0				x		x
Buchanan†								
Butler	+	0						x
Caldwell	+	+			x			
Callaway	–	+					x	x
Camden	+	–			x	x		
Cape Girardeau	+	–	x					x
Carroll	–	0				x		x
Carter	0	0	x x	x x	x			
Cass	+	0	x x				x	
Cedar	–	0	x			x		
Chariton	–	–	x		x			
Christian	+	0	x x		x			
Clark	–	–	x	x	x			
Clay*								
Clinton	+	+				x		
Cole	+	+				x		
Cooper	–	+						x
Crawford	–	–	x x		x			
Dade	–	0	x		NA			x
Dallas	+	0			x			
Daviess	0	–			x			
DeKalb	–	0	x x	x	x			
Dent	–	+	x x		x			
Douglas	0	+	x x		x			
Dunklin	+	+	x					x
Franklin	0	+	x x			x	x	x
Gasconade	–	–			x			
Gentry	0	0						
Greene								
Grundy	–	0						x
Harrison	–	–						
Henry	–	–				x		
Hickory	0	+	x x	x x	x			
Holt	0	+			x			
Howard	–	–						x
Howell	–	+	x				x	
Iron	–	0	x					
Jackson†								
Jasper	+	–				x		x
Jefferson†								
Johnson	+	+	x x				x	M
Knox	+	0				x	x	
Laclede	+	0	x x				x	x
Lafayette	–	+						x
Lawrence	–	–					x	x
Lewis	–	0			x			
Lincoln	+	+						

County	I Change in #MD 65[6]-70[2]	II Change in #DO 65[9]-70[2]	III Less Than 1/1500 65-70[8]		IV No MD 65[6]-70[2]	V No Hosp 65[5]	VI New Hosp 65-70°	VII Below 3.6/1000 65[4]	VIII Increased # Beds 65-70°
Linn	–	–							x
Livingston	–	0						x	
McDonald	–	0		x		x			
Macon	–	0					x	x	
Madison	–	0	x	x					x
Maries	0	0	x	x	x x	x			
Marion	+	0							x
Mercer	–	0			x x		x	x	NA
Miller	+	+						x	
Mississippi	–	+				x			
Moniteau	–	0						x	
Monroe	+	+				x			
Montgomery	0	+		x		x			
Morgan	0	+				x			
New Madrid	–	0	x	x		x			
Newton	–	0					x	x	x
Nodaway	+	–	x	x					
Oregon	+	+	x			x			
Osage	–	+	x	x	x	x			
Ozark	–	0		x		x			
Pemiscott	–	0	x	x				x	
Perry	–	–	x	x					x
Pettis	–	+					NA	x	x
Phelps	+	+	x	x			x	x	
Pike	–	–					x		
Platte	+	+	x	x		x			
Polk	–	0						x	
Pulaski	+	+	x	x				x	
Putnam	+	+			x				
Ralls	0	0	x	x	x x	x			
Randolph	–	–	x				x x		x
Ray	+	–						x	x
Reynolds	0	+	x	x	x x	x			
Ripley	–	0	x	x			x		
St. Charles†									
St. Clair	+	+							
St. Francois	–	–					x	x	x
St. Louis†									
St. Genevieve	+	–	x	x		x			
Saline	+	0						x	x
Schuyler	–	+	x		x x	x			
Scotland	0	0			x x	x			
Scott	+	–					x	x	x
Shannon	–	+	x	x		x			
Shelby	–	–				x			
Stoddard	+	–		x		x			
Stone	+	+				x			
Sullivan	0	0	x						
Taney	+	+							x
Texas	–	0	x	x				x	
Vernon	0	+						x	
Warren	–	–		x		x			
Washington	+	0	x	x			x	x	
Wayne	–	+	x	x		x			
Webster	–	0		x		x			
Worth	–	–		x		x			
Wright	+	–		x			x	x	

Key:
+ Increase in sources.
– Decrease in sources.
0 No change in source.
x Presence of characteristic indicated.

† Statistics excluded.

° All 1965 statistics from the same source. All 1970 statistics from the same source. Calculated by comparison of *Hospitals Guide Issue*, 1965 and 1970.

cal care is of less importance than to the poor family. Similarly, a person with higher education than another may or may not utilize a source of medical care to a greater extent than the less educated person, depending upon age, distance and income. In the ensuing evaluation, discussion of a single characteristic does not exclude other characteristics.

Possible Impact on Providers

The decrease in the number of physicians means that there will be fewer physicians per population. If it is assumed that the same total number of people desire medical care in 1970 as in 1965, the physicians in rural counties of Missouri must now be prepared to individually accept more patients than they cared for in 1965. This increased work load must result either in longer hours for the physician, in shorter visits per patient or in some patients not receiving medical care. Since no studies have been found which describe the comparative patient loads possessed by rural Missouri physicians in 1965 and 1970, the results of the decrease in physicians will be inferred. A decreasing number of physicians indicates that insufficient new physicians are moving into rural areas. It is expected that the physicians still in rural counties are the older physicians who moved there some years earlier. It would be assumed that, generally, these physicians, because of age, would be unable to assume a large burden of extra patients. The result would be some patients who, because of distance, income or other factors, would not receive medical care.

The hospital is a second source of medical care in Missouri rural counties. There have been no hospital closings that indicate that a decrease in physicians means a decrease in hospitals. The physician, however, serves as a point of entry into the hospital and a source of some types of medical care once the patient is admitted. Fewer physicians will result in the inability of some individuals to receive the medical care necessary for examination and determination that hospitalization is required, which results in fewer admissions. A decrease in physicians also means a decrease in the amount of services a hospital is able to offer. Fewer physicians will not be able to perform the operation load once maintained in the hospital. For some operations, transfer to a larger facility is necessary. However, if transfer for all surgery results, the occupancy of the hospital declines further. The result of a decline in the number of admissions for the hospital is a low occupancy rate and high hospital bills in comparison to the care delivered. This situation is self-perpetuating. The low level of sources can result in low occupancy and a low level of care. The hospital is unable to improve its services because it has insufficient funds. The poor hospital facilities are, in turn, given by physicians as a reason for not moving to a small community.

The decrease in physicians and the inability of the hospitals to improve is contrary to the needs of rural residents. The effect of the decrease is (1) to accentuate the present level of needs as established by statistics on illness and mortality and by consumer desires and (2) to increase the present factors which inhibit the delivery of medical care.

Patient Needs

The extent of illness is based on the reported percentages of individuals inhibited from normal activity because of illness as recorded on a national basis between 1963 and 1965. The percentage of rural nonfarm residents of all ages who reported a limitation of activity was 14.5. For rural farm population, 16.5% experienced a limitation of activity. Ten percent of the urban dwellers were limited in activity in the same period. By age, the greatest difference in percentages between rural and urban was in the productive ages of 45 to 65 years when the 17.1% of urban dwellers were affected vs 24.1% of the rural inhabitants.[9] The days of disability for rural residents, farm and nonfarm, also exceeded the days for urban residents. Rural, nonfarm residents experienced 2,310 days of disability per 100 persons per year. The rural farm occupants had 2,730 days of disability per 100 persons per year. For urban dwellers, the corresponding amount was 1,980 days.[9]

A second area of patient need to be considered is cause of mortality. What are the causes of death in rural areas? One result of advancing science and technology has been the decrease in infectious disease as a cause of death in the U. S. with a concomitant increase in mortality rates from chronic diseases. However, among low income, rural groups, national figures show a greater mortality rate from infectious diseases than from chronic diseases.[9] In view of the technology and cause of death relationship, this indicates either a lower level of technology being utilized by rural sources of medical care, a lower level of usage of sources or a combination of both factors.

A second cause of mortality to be considered is the accident. In Missouri in 1969, accidents were the third largest cause of death in the 35- to 54-year age brackets, and fourth largest in the 55- to 64-year age groups.[10] Agriculture, as an occupation, is the biggest work-related cause of death for all males. In addition, it is the only work-related cause of accidental death for males of five to 14 years; it is the greatest in the 15- to 24-year age group; and it is the largest cause from men aged 45 to 74 and over.[10] The state of California, facing a similar dilemma from accidental deaths and agriculture, has concluded that three factors are responsible for the death rate: the time factor in getting the injured to medical facilities, the lack of a nearby trained source of aid and the lack of availability of proper equipment.[11]

A third area of patient need of medical sources is the expressed desire of the population. Dissatisfaction with care has generally revolved around the lack of immediate care[1] and the distance necessary to travel to get care.[12] When questioned in regard to facilities desired, emergency, maternity, operating room and nursing home were generally specified.[3] These individuals expressed a desire for basic services and were willing to travel greater distances for the more specialized services. However, a decrease in sources will move the immediate care and basic services even farther from the areas of need.

DISTANCE AS A FACTOR

A second effect of the decrease in sources is to place further obstacles in the path of those seeking medical care. One factor which may inhibit the receipt of medical care is distance.

If the residents of a county are unable to visit a previous physician, then it is necessary to examine the likelihood that they will seek care elsewhere. Among rural demographic characteristics which may determine whether or not a person will seek medical care elsewhere, distance may be an "enabling factor."[13] Some studies indicate that distance has no effect on the use of medical care. One such study, comparing the use of sources of medical care in four small communities, indicates that the greatest use of sources was incurred by the two smallest communities which had the lowest number of sources in residence and were the greatest distance from other sources. The two smallest communities also had the largest percentage of individuals in the younger age groups. One of the two communities also had the largest family size of the

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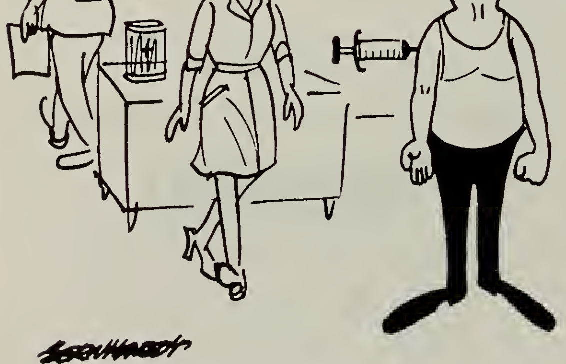
four communities.[13] It may well be that concern for the younger members of the family promoted the greater use of medical care sources and greater distance traveled. The question is raised as to what the effect would be if the families farthest from the source also were the oldest.

Studies generally indicate that older households have a lower income, a lower standard of living, smaller homes and fewer children. The standard of living may have an effect on whether sources of medical care are used.[14] If concern for children was not a factor, then the use of sources of medical care would decrease especially among lower income, older groups. Some evidence indicates that older age groups are reluctant to leave the county of residence in seeking medical care.[15]

A study of two ten-county blocks of rural Missouri counties, one group in the north and one in the south, indicated that counties in the south suffered a greater amount of illness and more days in bed because of illness, but had fewer physicians' calls per 1,000 days of bed illness. The individuals who were ill in the southern area were a greater distance from sources than were the ill residents of northern counties. The study also determined that within each county group, north and south, the individuals who were closest to the sources of care had had more physician visits. No conclusions were drawn, but a relationship was felt to exist.[16] The author's conclusion is that as sources of medical care become more distant from the location of those who need them, the use of the sources by the needy will decrease. In the case of physicians, the decline in the total number is evident. Hospitals in rural areas are not declining in number. However, as the number of physicians declines, the opportunity for the patient to see the physician declines and the patient's chances of being examined and admitted to the hospital decline.


"Now, where were we? Oh, yes. . . ."

PHYSICIAN-PATIENT RELATIONSHIP

A second factor that will inhibit the receipt of medical care is an increase in the existing separation of provider and patient. Past concepts of the physician have been altered by the increased physical and social distances between physicians and patients and have resulted in the patient placing faith in the medical profession rather than in the individual doctor. The social distance is due to disparities in income, education and standards of living. The physician in a rural community may occupy the highest professional role and is an object of interest to the community.[17]

As a result of the separation of patient and physician, three attitudes may be discerned: the primary relationship views the physician as a family doctor, the secondary concept involves an impersonal relationship and the alienated attitude rejects the physician as an appropriate source of medical care.[17] While there have been no indications of the relationship between distance and attitude toward the physician, it would be expected that, as the patient sees the physician less frequently in the community on a basis other than a medical visit, the previous social separation would increase. The greater feeling on the part of the patient that the physician is different might impede a frank discussion of problems other than physical. A secondary attitude would be promoted. The patient may discuss physical problems, but the impersonal nature of the contact would prevent a full open discussion.

CONSTANT SOURCE OF CARE

A third factor that will be influenced by the decrease in sources is the already low level of constant use of the same source of medical care. Data indicate that in numerous instances, the care is inconstant. Of families with less than three members, 57.4% do not have a source of care whom they consider a "family doctor." Of families with three or more members, 42.6% do not have a single source of care. When the family head is 44 years of age or less, 23.4% do not have a family physician. Other studies show approximately the same statistics. Another indication of the lack of a constant source of care is the number of physicians reported as being visited within the previous year, which was as high as three physicians for 25% of the sample in one instance.[17]

SUMMARY

Rural counties experience greater rates of disability than urban areas. Rural counties have a reversal of the normal patterns of death caused by infectious and chronic disease. Fatal accidents occur more frequently in rural areas. These facts reflect the consumer-expressed need for immediate medical care and basic services within the rural area.

The trend toward a decrease in sources is clearly antithetical to the needs of rural counties. Moreover, the decrease in sources will increase the medical care problems of the rural area. As the sources decrease, the distance of the source will increase for some prospective patients. Evidence indicates that the distance may inhibit or prevent the receipt of medical care. A decrease in sources will emphasize the present social distance between source and provider, further inhibiting an open discussion of all problems. As the primary sources of medical care in the rural area decrease, the present level of inconstant and irregular usage of medical care sources will further increase.

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Special Feature

Nuclear Impact on the Field of Medicine

By

STUART W. SYMINGTON
United States Senator from Missouri

The following is a transcript of the 22nd Annual Dr. F. G. Thompson, Sr. Lecture which was delivered by Senator Symington in St. Joseph on Nov. 13, 1971.

Anyone who knew the American patriot whose name this lecture honors this afternoon could only be grateful, indeed, for the opportunity of being a part of this occasion.

Dr. F. Gregg Thompson was far more than an outstanding member of his profession. He was a wise and cultured gentlemen, a citizen dedicated to the betterment of his community and his country. He also was a true friend and, therefore, I am especially glad and proud to be with you today.

As one faces the future of our towns, our state and the nation, the steady growth in both the nature and degree of the problems of these three branches of Government make it rather difficult at times to see any light at the end of the tunnel of our future.

I do see light, however, and believe most of it is contained in the growing knowledge we are obtaining about the unprecedented power which lies in the atom. As we steadily obtain more information about this new force, it is becoming clear that here may rest the means and methods of not only achieving survival, but also of attaining a more prosperous and happier life.

We know that a full nuclear exchange between two opposing super powers could well destroy civilization. What many do not appreciate, however, is the fact that the very prosperity of which we are so rightfully proud also, in the long run, could create conditions which would make life impossible on this earth, because pollution incident to prosperity could destroy both our supply of clean, fresh water and the thin film around the earth which has supported all life since the beginning—a film called atmosphere.

Already the new force found in the atom is used to run half of our recently built power plants by means of nuclear reactors. Tomorrow, we will first have the more efficient "fast breeder" fission reactor, and day after tomorrow, the controlled fusion reactor.

When the latter is developed commercially, adequate energy supply will be available to man for 1,000 years. We will literally "burn the oceans" for power and, in that process, will obtain unlimited quantities of clean, fresh water; process and recycle waste; and create new sources of food and fiber.

Earlier this year, as a member of the Joint Atomic Energy Committee, I visited the Los Alamos Scientific Laboratory in an effort to catch up on the latest nuclear science and technology.

In addition to their important weapon development responsibilities, the scientists at Los Alamos are also conducting most interesting peace-time programs, and, incidentally, the Staff at that Scientific Laboratory would welcome any cooperative program between your Staff and theirs in areas of mutual benefit, if at any time you all here feel that would be constructive.

The first area of interest at Los Alamos is concerned with heat sources.

Plutonium, the element number 94, was the first element synthesized by man. Isotopes of that element with mass numbers 232 through 246 have been identified and all are radioactive.

The use of the Plutonium 239 isotope for producing large amounts of energy by fission is well known. Consider the fact that the fissioning of one ounce of Plutonium 239 in a power reactor produces electrical power equivalent to the combustion of 90 tons of coal.

Within the last ten years, another isotope of Plutonium, Pu 238, has assumed great importance because its radioactive decay generates sufficient heat to make it attractive as a source of power for applications requiring a continuous automatic source of energy.

At Los Alamos, I saw a small sphere of Plutonium 238 oxide about the size of an old-fashioned, candy jawbreaker glowing cherry red from its natural alpha particle decay. If we were to come back 90 years from now, it would still be glowing and there would be very little difference in its power output. (Incidentally, as further evidence of the incredible force now lodged in the atom, if the Plutonium isotopes had been 239 instead of 238, instead of lasting 90 years, their heat would have lasted 24,000 years.)

The principal applications for this Plutonium isotope 238 are in space electric power supplies and biomedical devices.

The space electric power supplies are already an acceptable conventional source of power. For example, a Plutonium 238 power supply was launched in June of 1961 on a Navy navigational satellite, and that unit is still in operation.

Two hundred and thirty-eight power supplies also are presently in operation on the moon, generating electrical energy for the scientific experiments set up by the Apollo astronauts, and future, unmanned space missions will utilize 238 power supplies.

Now, a few words about the influence of the atom on the subject closest to the mind and heart of Gregg Thompson—medicine.

As important as these space applications are, the use of Plutonium 238 in biomedical devices may ultimately become the greatest of all contributions of Plutonium to the progress of man.

At present, the Atomic Energy Commission (AEC) and the National Heart and Lung Institute are funding research in two biomedical areas: (1) the pacemaker and (2) the artificial heart or circulatory assist device. As we all know, the cardiac pacemaker is a device used to regulate the speed and consistency of the heart rate. Conventional pacemakers use chemical batteries which must be replaced every two or three years, whereas Plutonium 238 batteries will operate for at least ten years.

Studies in the United States are still confined to animals, but both the French and British have implanted plutonium pacemakers in humans. As everyone can appreciate, the difference between undergoing an operation of this character every

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two years as against every ten years is not to be taken lightly.

Recently, the replacement or transplanting of human organs has received considerable attention. As but one example, the transplantation of human hearts has been a subject of worldwide attention. The medical and moral problems involved here have generated considerable controversy over the merits of organ transplants, and many medical people look to the creation of artificial organs or mechanical devices as the solution to serious problems with the original organs.

The present efforts of the AEC and the National Heart and Lung Institute to develop a mechanical heart to assist or, even, to replace diseased hearts is but one example of biomedical research now being conducted in this area.

The problems associated with such a device are both complex and severe. Therefore, to date, our efforts have been relatively modest and will probably remain so for some time. However, some real progress has been made, particularly with respect to efforts to develop a source of energy for the artificial heart.

Plutonium 238 fuels have been developed at Los Alamos which provide the necessary power, and, most important, these fuels have extremely low external radiation levels.

At this Laboratory, what is known as biomedical grade Plutonium has been developed, and what we have now accomplished is one of the most dangerous materials being so packaged and of such low external neutron emission that it is acceptable to being implanted in the human body.

Approximately two to seven watts of pumping power will be requried to operate a mechanical heart. If the implanted engine can be made to operate at an efficiency of 20%, the required energy source would have to provide ten to 35 watts of power. Such a heat source of 35 watts would require a cylinder about three-fourths inches in diameter by three-fourths inches tall.

As mentioned, in this country Pu 238 fuels are presently being used in animal implantation studies. Indications to date are that this fuel, designated as biomedical grade, has no harmful effects on the animals.

In addition, studies are presently in progress by both the National Heart and Lung Institute and the AEC on mechanical machines which can convert the heat from the Pu 238 to useful mechanical work. If their efforts are successful, a compact artificial heart will be produced which can be implanted in a person's body for periods in excess of ten years.

Present estimates indicate that if such a heart unit were available, 100,000 to 200,000 of them would be implanted each year in persons in the United States.

Now with respect to these fascinating developments, please don't expect from me, a layman, many specific detailed answers. This is not my field of expertise, but I do not have enough technical background to know that those of you who are experts in various fields of medicine could well be interested. I will be very glad to tell you whom to contact for any details you might desire.

Another area of excitement at Los Alamos has to do with a program called ICONS. This word stands for Isotopes of Carbon, Oxygen, Nitrogen and Sulphur. Unlike the isotopes normally associated with work in the nuclear field, the isotopes referred to in this program are not radioactive. They are stable.

Let me dwell on just one, an ICON named Carbon 13.

Carbon, as we have it on the earth, is made up of Carbon 12—about 99 parts in 100; Carbon 13—about one part in 100; and Carbon 14—two parts in 1,000,000.

By the way, Carbon 14 is radioactive and is the isotope which make possible the precise dating of ancient materials. It's the "dating" isotope.

Carbon 13, however, is different. Since it has an odd number of particles—nucleons, it can be detected by certain nuclear magnetic techniques. Not only can one detect the presence of this Carbon 13 isotope, but one can determine the actual position of the Carbon 13 nucleus in the molecule.

This opens up a whole new ball game in the field of medical study and diagnosis. For example, starting this fall, research workers at Los Alamos will synthesize glucose using Carbon 13 and expect therefrom to be able to develop a definitive test for diabetes and other sugar associated abnormal metabolisms which will eliminate the unpleasant blood sampling and tedious analysis presently required.

Los Alamos scientists anticipate feeding an individual glucose properly labeled with Carbon 13 and then analyzing the patients breath by means of a simple nuclear magnetic response technique. This quick test, in itself, will allow a physician to determine whether or not the patient is metabolizing the sugar in a normal or abnormal fashion.

This is believed to be but one of many exam-

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ples by which, thanks to Carbon 13, the functioning of body processes can be followed easily and specifically. The technique offers an enormous field of research that can lead only to better medical diagnosis and treatment.

Los Alamos has taken the lead in working on Carbon 13. In a little over a year from now, they expect to increase their present output of 4 kilograms per year to 50 kilograms per year.

Surely, all people of medicine not only should be aware of this work, but eventually should participate in it.

Now, a few words about some progress in this atomic field with respect to what all of us earnestly pray for—additional assistance looking towards the cure of the curse of cancer.

Another activity scheduled to start soon has to do with the potential biomedical uses of negative pions for the radiotherapy of deep seated cancer. (The negative pion, an unusual particle having a mass 273 times that of an electron but the same charge, is believed to be the "glue" which holds the protons and neutrons together in the nucleus.)

Los Alamos is in the final stages of constructing the world's most intense proton accelerator, called LAMPF for the Los Alamos Meson Physics Facility.

The protons produced in this accelerator will have many uses. One of them will be to produce negative pi mesons. Since the pi mesons have an electric charge, they are responsive to magnetic fields and, therefore, may be collected into a beam by means of special magnets. By means of additional magnets, this beam can be directed wherever one wishes it to go, and collimating slits much like the light shutter on a camera may be used to define the shape and size of the beam.

In other words, by the use of magnetic fields and collimators, pions can be collected, directed and focused just as lenses, prisms and diaphragms make possible the collection, focusing and direction of ordinary light.

The range of pions in matter, i.e., in human tissue, is strictly a function of their initial velocity and the stopping power of the material they are penetrating.

As an example, a 1,000,000 electron volt meson will penetrate 10 cm in the soft tissues of the body before losing all its kinetic energy and coming to rest. An 82,000,000 electron volt pion would stop or come to rest at a depth of 20 cm. Pions with intermediate energies would come to rest at depths in between.

In order to treat a tumor which begins 10 cm beneath the body surface and extends to 20 cm, one would select a pion beam with an energy spread of 54 MeV to 82 MeV.

It is after this particle comes to rest, however, when it exhibits a unique property that has no counterpart in any other radiation used for cancer therapy. Being negatively charged, it is attracted to the nucleus of a nearby oxygen, nitrogen or carbon atom—ever present constitutents of normal and malignant tissue—and cascades down the atomic levels toward the attracting nucleus.

As it cascades down, low- and intermediate-energy x-rays, called mesic x-rays, are emitted. When it reaches the nucleus, it is captured and its entire mass is converted to energy according to the famous Einstein equation $E=mc^2$ (in which E is energy, m is mass of the pion and c is the velocity of light).

The capturing nucleus literally explodes, thereby throwing out nuclear fragments in all directions. It is the peculiar patterns, called "stars," that this phenomenon makes in nuclear track photographs and cloud chambers which led to the discovery of pions in 1947 by cosmic-ray physicists.

The total energy produced in nuclear capture is approximately 140,000,000 electron volts. About 40 such volts go into overcoming the binding energy of the capturing nucleus, another 70 are carried off as kinetic energy of neutrons, a small amount as energetic nuclear gamma rays and the rest, about 30, as kinetic energy of protons, alpha particles (helium nuclei) and heavier nuclear fragments (lithium and carbon nuclei).

It is these protons, alpha particles and heavier nuclei that are of primary interest in cancer therapy. Because of their charge and relatively large size, these three have a very short range in tissue and, for the most part, are densely ionizing.

All radiations used for cancer therapy ionize, either directly or indirectly, the atoms and molecules of the tissues they pass through, both normal and malignant. It is the ionizing events that are responsible for the damage done.

Such conventional radiations as high energy x-rays and cobalt gamma rays are sparsely ionizing, i.e., they produce rather widely spaced ionizing events along their path and consequently travel rather long distances before they lose all their energy. The particles produced in Pi minus meson "stars," however, travel short distances and produce dense ionization tracks; and densely ionizing radiations are far more effective at killing cells than are sparsely ionizing radiations.

This increased killing power of densely ionizing radiation over conventional x- or gamma rays for the same amount of dose is known as the "relative biological effectiveness." (RBE) The particles formed by a pi minus meson (pion "star") have an RBE of approximately three. That means they are approximately three times as effective at killing cells as are the x-rays or gamma rays commonly used for radiation therapy.

Not only does the RBE of radiations increase with increasing ionizing density, but the ability to kill anoxic cells, i.e., cells with inefficient oxygen, also increases.

The blood supply inside tumors, especially larger ones, is often impaired, resulting in many of the tumor cells being in an anoxic state. This anoxic state protects the cells from radiation killing by sparsely ionizing radiation much more than from densely ionizing radiation. In other words, for conventional x- and gamma rays, it takes a larger dose to kill cells in an anoxic state than when they are fully oxygenated. In fact, a pion beam would be almost twice as effective as the current, more conventional radiations for killing the anoxic cells in a tumor.

All ionizing radiations damage normal as well as malignant tissues, and the whole objective of radiation therapy is to be able to get enough dose into the tumor to kill the malignant cells while, at the same time, doing as little damage as possible to the normal tissues on the way into and surrounding the tumor.

Here, again, a pion beam has added advantage. The dose from x- and gamma rays, electrons and even high-energy neutrons decreases approximately with depth, i.e., the energy deposited, the dose, is always higher in the intervening tissue on the way into the tumor than it is in the tumor itself. A considerable dose also is delivered to the normal tissues on the backside of the tumor, because not all of the radiation is stopped in the volume being treated.

The deposition of energy as a function of the distance the beam travels in the body is the depth-dose distribution pattern. With pi minus mesons, the dose along the beam, the plateau region, changes very little with depth until the pions come to rest, whereupon they are captured and released about three times the dose in the terminal region than in the plateau region on the way into the tumor.

As the ranges of the nuclear fragments composing the pion "star" are very short, essentially all of their energy is absorbed in the treatment volume and there is essentially no dose to normal tissues on the backside of the tumor. In addition, the pion has a low relative biological effectiveness for damaging normal tissues on the way into the tumor. Only when it forms a "star" in the tumor does it produce densely ionizing particles with a high RBE for killing anoxic cells.

Another technique being developed at Los Alamos is the electronic sorting and classification of cells. As we are well aware, cells have different characteristics such as size, density, ability to take specific dyes, etc.

At Los Alamos, they have been able to develop methods which allow one to automatically analyze these different cell properties and, also, to actually separate cells physically, according to their different properties.

In the past, classifying cells has been a tedious task handled by visual means with little hope of actually being able to physically select single calls according to their various physical properties. However, developments at Los Alamos combining the skills of physicists, electronic engineers and biologists have now been combined so as to bring about this new and powerful tool for the vital study of cell behavior.

Time does not permit me to describe all the areas of research relevant to biology and medicine that are being carried on at Los Alamos under the direction of the Atomic Energy Commission. There is a very great amount of it, however, and just about all the medical research is unclassified, lending itself well to cooperative programs with qualified scientists. So, if you are interested in pursuing these fascinating subjects further, it would be a privilege to arrange for you to talk with the expert in question at Los Alamos.

Again, let me assure you that these people, headed by Harold Agnew, one of the world's great scientists, are most receptive to cooperative programs between academic and research institutions and their own laboratory efforts.

Seven state senators were honored guests at the Legislative Day luncheon in Jefferson City. *(Left to right)* Sen. Truman Wilson, 34th District; Mrs. Fred P. Handler, President of the Cole County Woman's Auxiliary, who welcomed the State Auxiliary and guests; Sen. Maurice Schechter, 13th District; Sen. William J. Cason, 31st District; and Mrs. Keith D. Jones, State Auxiliary President.

MSMA Woman's Auxiliary Observes State Government on First 'Legislative Day'

Something different happened in the Missouri House of Representatives and Senate in Jefferson City on April 12.

It was the first "Legislative Day" for members of the Woman's Auxiliary to the Missouri State Medical Association. Approximately 120 physicians' wives arrived in the Capital City by bus, auto and plane to make their first official visit as a group to both houses of state government, to observe them in action and to personally meet the representatives of their individual districts.

The Legislative Day was spearheaded by Mrs. Keith D. Jones of Warrensburg, President, in view of the Auxiliary's accelerating interest in legislative activities and their effects upon the medical profession and the environment in Missouri and nationally. The group was introduced in the Senate by Sen. William J. Cason, Clinton, and in the House by Speaker James E. Godfrey, St. Louis, and a new awareness of interest was created for both the representatives of government and the Auxiliary members.

Mrs. Jones; Mrs. James A. Reid of Marshall, Public Affairs Chairman for the Auxiliary; and Mrs. Gerald L. Miller of Kansas City, Legislative Chairman, were honored by special introductions on the floor of each house.

Activities for the day also included a tour of the State Capitol Building, a luncheon at the Hotel Governor which was attended by seven state senators and a special tour of the recently-restored Governor's Mansion conducted by Mrs. Marge Estes, personal secretary to Mrs. Warren E. Hearnes.

GOV. WARREN E. HEARNES SIGNS 'CLEAN WATER BILL'

(Standing, left to right) Sen. William J. Cason, Mrs. James A. Reid, Mrs. Gerald L. Miller and Mrs. Keith D. Jones with Governor Hearnes.

Mrs. Jones, President of the Woman's Auxiliary, and Mrs. Reid and Mrs. Miller, Committee Chairmen, were privileged to be present when Gov. Warren E. Hearnes signed Missouri's Clean Water Bill (SB 424), which was sponsored by Senator Cason.

Since 1969, the Woman's Auxiliary has been working diligently and successfully in assisting Dr. Arthur W. Neilson, Chairman, and the MSMA Ad Hoc Committee on Environmental Health in its educational and legislative efforts pertaining to pollution and Missouri's environment.

Seated at the left of the head table rostrum were *(left to right)* Mrs. James A. Reid, State Auxiliary Public Affairs Chairman; Sen. Jack E. Gant, 16th District; Mrs. Gerald L. Miller, State Auxiliary Legislative Chairman; Sen. Ike Skelton, 28th District; Sen. Paul L. Bradshaw, 30th District; Mrs. A. J. Campbell, Auxiliary Corresponding Secretary; and Sen. Norman L. Merrell, 18th District.

Senator Cason, 31st District, was host-senator and assisted Mr. Royal O. Cooper, MSMA Assistant Executive Secretary, and Mrs. Jones in arranging events for the day.

As guest speaker, Senator Cason commended the Auxiliary members for their interest and urged them "to get involved, know your representative and senator and learn what they think about organized medicine!" He emphasized the vital importance of physicians and their wives being alert to legislation pertaining to medicine and providing correct information to assist their representatives in making decisions. He stated that "There is no excuse for you people not communicating with your representatives."

Other senators who were honored at the luncheon and spoke briefly were Paul L. Bradshaw, Springfield, 30th District; Jack E. Gant, Independence, 16th District; Norman L. Merrell, Monticello, 18th District; Ike Skelton, Lexington, 28th District; Maurice Schechter, Creve Coeur, 13th District; and Truman E. Wilson, St. Joseph, 34th District.

Dr. James C. Cope, Councilor for the MSMA Fifth District, was a special guest.

Mrs. Fred P. Handler of Jefferson City, President, welcomed the guests on behalf of members of the Woman's Auxiliary to the Cole County Medical Society who assisted throughout the day. Mrs. Reid and Mrs. Miller addressed the group in regard to their committee activities.

Mrs. Jones stated that the State Auxiliary hopes to make Legislative Day an annual event as an incentive to greater knowledge of government and participation in legislative matters.

AUXILIARY MEMBERS AND THEIR SENATORS GET ACQUAINTED

Greene County Woman's Auxiliary members visited with the 30th District's Sen. Paul L. Bradshaw.

Sen. Ike Skelton and friends from Linn, Chariton, Saline, Lafayette, Pettis and Cooper Counties (29th District).

Sen. Jack Gant's 16th District Auxiliary members are from Jackson County and Clay County Medical Auxiliaries.

medical melange

Notes of interest from Here . . . . and There

Dr. Joseph B. Kendis of St. Louis has stepped down from his post as first director of St. Louis' pioneering Detoxification Center. Present and former patients, representatives of the some 6,800 patients treated at the Center since it opened on Nov. 18, 1966 and the center's staff honored Doctor Kendis with a farewell reception on April 28. Begun under St. Louis Police Department sponsorship and with federal aid, the Detoxification Center was transferred to a special unit at St. Louis State Hospital in December, 1968. It continues to have police backing. **Dr. N. C. Gupta** is now director of the Center.

Dr. C. W. Chastain, Farmington, was recently appointed a member of the Governor's Advisory Council on Comprehensive Health Planning by **Gov. Warren E. Hearnes.** Doctor Chastain, who has served on the Governor's Task Force on Health Care Accessibility for two years, is the third practicing physician on the Advisory Council, which meets monthly to review health planning activities in Missouri and some adjacent areas in Kansas and Illinois.

Dr. Eugene M. Bricker, formerly of St. Louis, has joined the staff of Pike County Memorial Hospital in Louisiana to work exclusively in surgery and as a consultant for surgery. A professor of clinical surgery at Washington University, he has taught at that School of Medicine for 34 years. He was chief surgeon at Ellis Fischel State Cancer Hospital in Columbia from 1939 to 1942. Doctor Bricker has retired from his medical practice in St. Louis and now lives on his farm near Clarksville.

Dr. Norman B. Ackerman, chairman of the Department of Surgery at Menorah Medical Center in Kansas City, attended the 76th Congress of the European Society for Experimental Surgery in Amsterdam, Holland from April 10 to 14. He delivered two papers, "Alterations of Intrahepatic Circulation Due to Increasing Tumor Growth" and "Further Studies on the Flow Rates of Intestinal Lymph: The Effects of Altered Physical Conditions." This work was carried out in the Surgical Research laboratories at the Medical Center. Doctor Ackerman also is chairman of the Surgical Task Committee at the University of Missouri-Kansas City School of Medicine.

Dr. Charles A. Leech, Columbia, was named Cosmo of the Year at the Columbia Cosmopolitan Luncheon Club's 25th annual inaugural banquet recently. He is a charter member and past-president of the service club. As a local winner, he will be a nominee for the national award. Later, an international Cosmo of the Year is selected from national winners.

WASHINGTON

House-Senate differences and time pressures may well stall congressional action this year on the three major health measures before the lawmakers . . . national health insurance, health maintenance organizations (HMOs) and the Social Security Amendments to Medicare and Medicaid.

The death knell for national health insurance in this Congress may have been rung by House Ways and Means Committee chairman Wilbur Mills (D-Ark.) who now says he doubts if he will hold even executive sessions on the controversial measure.

The Medicare-Medicaid amendments (H.R.1) which contain the Professional Standards Review Organization Plan (PSRO), Medicare for the disabled and other amendments to the Social Security law, seem to face a rocky, uphill road in the Senate. One of the many controversial measures in the bill is Senator Long's (D-La.) catastrophic protection measure. To date, Chairman Long has failed to sell the catastrophic proposal to a majority of his fellow members of the Senate Finance Committee. To make Long's road even tougher to travel are grumblings from Mills over in the House that he won't buy the catastrophic proposal nor PSRO as presently written. But Long is a wily maneuverer and the chances that the Senate can come up with a version of H.R.1 that will be satisfactory to the House are still not completely dead.

Not yet quite counted out this year are the HMO proposals in both the Senate and House. Senator Edward Kennedy (D-Mass.) insists he's going to push hard and swiftly for his sweeping HMO plan, but Administration and House health lawmakers view Kennedy's plan as too expensive, too rigid. Settling these differences and working out a satisfactory compromise in limited time remaining for Congress might be tough.

The Administration says the Kennedy HMO bill could cost individuals $600 a year and a family of four, $2,400. The Kennedy plan also was criticized for the scope of benefits proposed and for too rigid requirements on what makes up an HMO by HEW Secretary Elliot Richardson.

Testifying before Kennedy's health subcommittee, Richardson compared the individual cost of $240 a year which was estimated in the Administration bill, with the $600 estimate for Kennedy's plan. The senator challenged the figure, suggesting that it would be closer to $400.

Richardson said "tight restrictions" in the senator's measure "would exclude individual practice HMOs or medical foundation plans in urban areas from federal support and this would create a severe disincentive to their formation."

The HEW Secretary also took issue with Kennedy's plan for an HMO trust fund to cover the costs of premiums for people who can't afford them. Provisions for federal financing of health services should not be included in a health delivery systems bill but in a national health insurance proposal, Richardson said. "Moreover, the earmarking of particular federal tax receipts for specific purposes is inconsistent with the basic principles of good budget management," he added.

Kennedy's bill would go beyond the Administration bill by requiring that HMOs provide mental health and dental care among other benefits.

"The approach in your bill is over-elaborate," Richardson said. "The more comprehensive the benefit package, the fewer the organizations will qualify," he said. "That is why the Administration bill has taken a quite general benefit approach."

* * *

The American Medical Association has urged Congress to observe a "flashing yellow light of caution" before rushing into large-scale HMO programs.

Testifying before the House Subcommittee on Health and Environment were John R. Kernodle, M.D., Burlington, N.C., Vice-Chairman of the AMA Board of Trustees, and Russell B. Roth, M.D., Erie, Pa., Speaker of the Association's House of Delegates.

Doctor Kernodle said that "considerable funds have already been allocated for HMOs. We urgently need to evaluate these initial efforts."

The North Carolina group practitioner told the subcommittee that the AMA favors a pluralistic system of medical care. "We believe different methods of medical care should be allowed to compete freely in the marketplace to satisfy varying public demands," he said.

"We strongly believe that no one method of medical care can satisfy all. No one method of care should be imposed and no one method should be so heavily subsidized or otherwise encouraged as to undermine the working of free choice.

"Believing in a pluralistic approach we feel that HMOs merit trial. But the basis should be limited, experimental. The possible benefits to health in terms of service rendered and their possible efficiencies in terms of cost reduction should then be objectively measured against the possible shortcomings and deficiencies."

Doctor Kernodle noted that the Administration has made 110 planning and development grants and is requesting $27 million in a supplemental budget for this year and $60 million next year to speed these programs.

"Conceivably," he said, "the HMO could solve some of our problems. But that is not yet proven. HMOs could represent a giant step backwards to a type of contract medicine the public rejected half a century ago."

Doctor Kernodle said that even in recent years contract medicine has had a "sobering record of failure—the passing of the Rip Van Winkle group in Hudson, N.Y., declining enrollments in the Community Health Association of Detroit and the Inter-County Hospital Plan of Johnston, Pa.—all these signals flash a bright yellow caution light."

In his testimony, Doctor Roth also urged the subcommittee members to be cautious in expanding HMO programs. He said, "The federal government has already made some 110 grants for planning and for feasibility studies for HMOs. But the results of these studies and plans are as yet unknown in terms of the quality and extent of the services which can be provided, their accessibility to beneficiaries, the cost of providing them and their acceptability to consumers and providers alike.

"We believe that the present range of federally-funded experimentation is quite adequate to provide most of the desired answers in a few years. On the other hand, we believe that the announced goal of having HMOs available to 80% of the population within a decade is indefensible overpromise."

Doctor Roth concluded, "We further propose a moratorium on the funding of additional planning for, or subsidy of, HMO operation until existing experimental programs can be evaluated in terms of quality of service, efficiency, availability and economy."

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R. W. AUGUSTINE, M.D., *St. Joseph*

The Colles Fracture

Abraham Colles, an Irish practitioner, in 1812, described[1] a wrist deformity which has since been known by his name. The deformity is a displaced fracture of the lower radius with dorsal and proximal migration of the carpus, but the fracture may occur without essential displacement. These are not typical in children and are more frequent in the older age group; women suffer this fracture more frequently than men.

The number of fracture lines (Fig. 1) and the displacement probably depends upon the force exerted, the duration and the structural qualities of the bone. The fracture lines are much the same (Fig. 2), only the number varies. The cortical shaft of the radius gives rise to a bulbus enlargement at the wrist, ending in cartilage over the carpal joint facet. The bulbus area is cancellous bone within the thin cortical walls. There usually is a transverse fracture of the lower radius a centimeter proximal to the facet. There is a collapsed zone on the dorsal aspect of the bulbus portion of the lower radius and this either buckles, as shown in the diagram, or the thin cortex breaks free and lies more or less perpendicular to the axis of the shaft.

This results in shortening of the dorsal portion of the lower radius and a piling up of bone in this area and allows the radial facet to declinate dorsally (Fig. 3). Often, the radial styloid is broken off. It remains in one piece due to penetrating fibers from the annular ligament encompassing the thumb extensor tendons. This allows a predictable fragment to be available for fixation by Kirschner wires, if needed. The radioulnar distal joint has similar penetrating collagenous fibers into the radius, accounting for the radial fragment often found in that area. Under the influence of the lunate bone, there may be a fragment of the radial facet about a centimeter square, which is broken off of the middle dorsal portion of the lower radius. This fragment often does not extend through to the volar lip of the facet. This may be called the lunate fragment. If displaced, usually it is not responsive to closed manipulation and remains a displaced portion of the radial facet. The ulnar styloid may be broken off due to the traction of the ulnar collateral ligament. These fragments, as described above, may all be present or any number may be present. All fracture lines of the above fragments may be present without displacement or the fragments may be completely displaced from the shaft of the radius. The fragments are shown by the accompanying drawings.

In people with firm bones, manipulation of

Fracture lines characteristic of a Colles fracture are described and the usual fracture displacement of the created fragments is indicated. The author suggests management of the fracture, particularly in regard to those cases of bones with osteoporosis. Doctor Augustine is in the private practice of orthopaedic surgery.

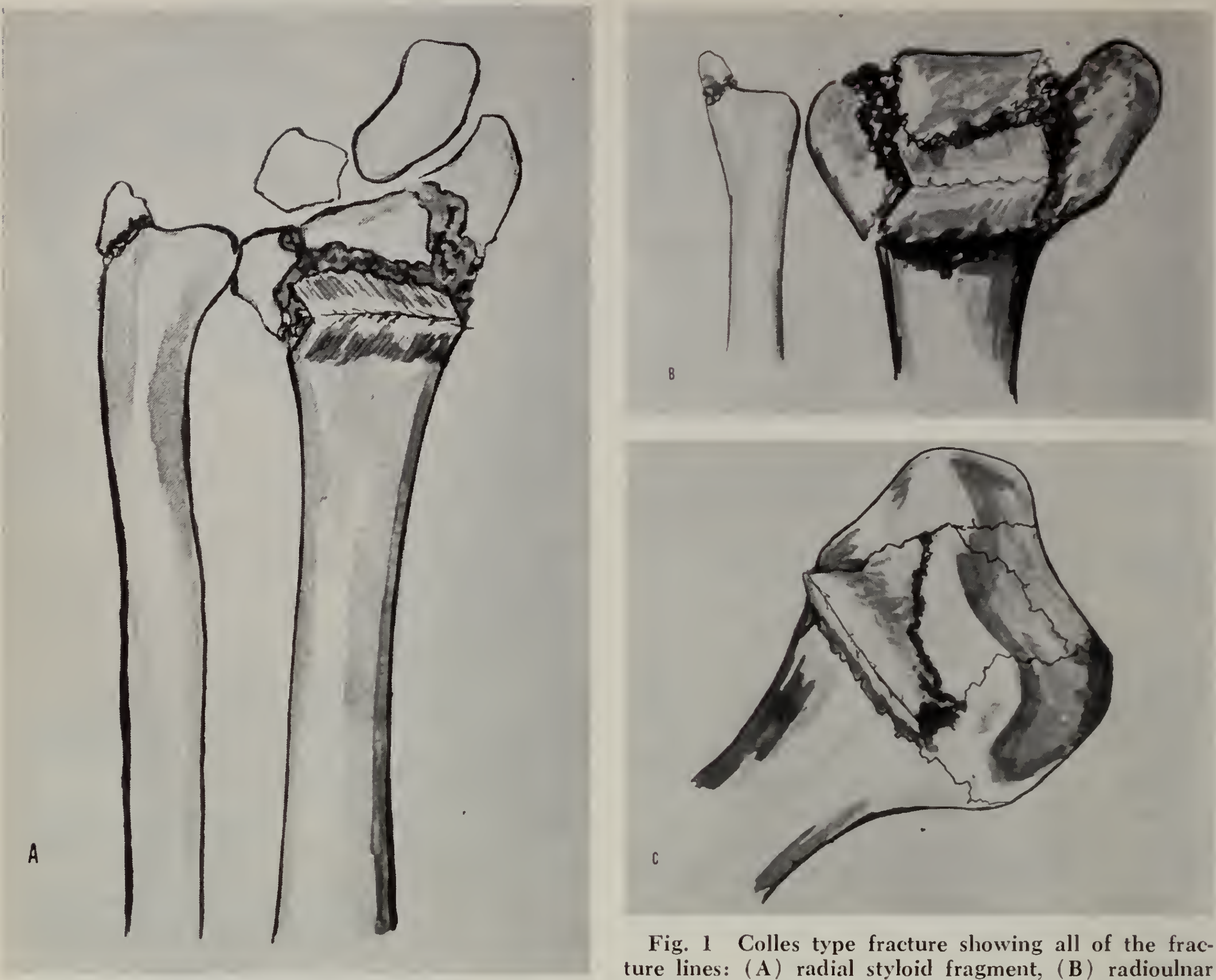

Fig. 1 Colles type fracture showing all of the fracture lines: (A) radial styloid fragment, (B) radioulnar joint fragment, lunate fragment and (C) dorsal buckling of the cortex and the avulsion of the ulnar styloid.

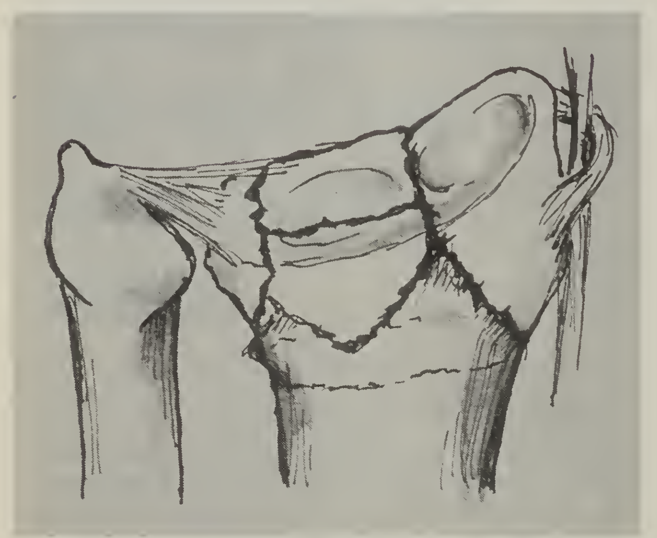

Fig. 2 The radial facet showing the lines in a Colles fracture and the penetrating ligamentous fibers that influence the fragments and the navicular and lunate facets that transmit the fracturing force with the resultant fragments.

these fragments, with the exception of the lunate element, may result in good morphology that can be managed with some flexion and ulnar deviation of the wrist. A skin tight dorsal splint ending at the MP joints is the best fixation. Such a splint does not cover more than 50% of the wrist. The splint can be held on with padding and a light cylinder of plaster. This must stop at the distal palmar crease, allowing full MP joint flexion and avoiding putting plaster in the thumb and index finger web space. This will allow finger motion which, with elevation, can often lead to a good final result. The final morphological result of the fracture is of little moment unless there is complete finger motion. Limited finger motion occurs because of the occurrence of edema, as well as anoxia, in the small joints of the fingers, followed by fibrosis and plastic deformation of the collagenous tissue. This may occur because of a hand-shoulder syndrome, a Sudeck atrophy or a neu-

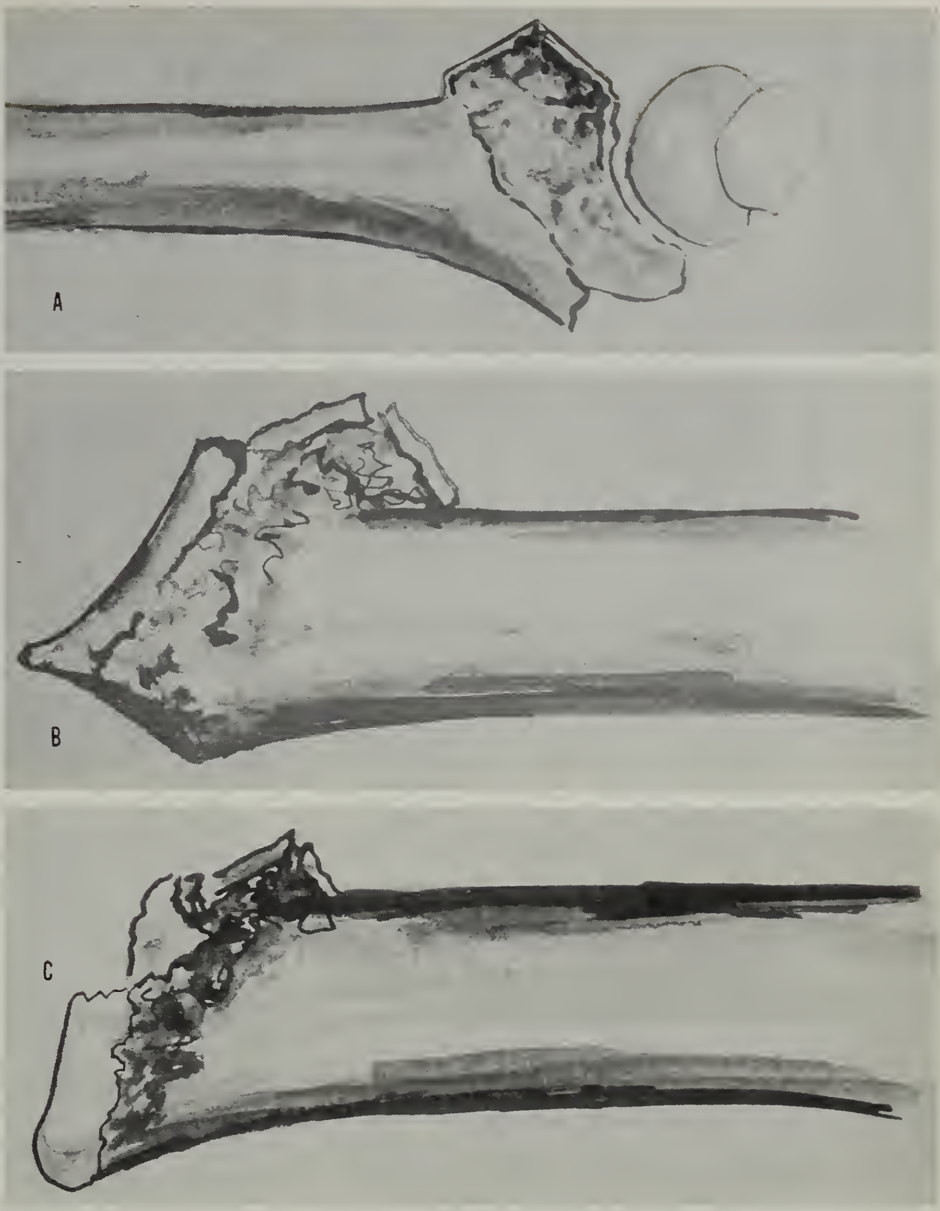

Fig. 3 (A) Lateral of a Colles type fracture showing the dorsal buckling of the cortex, the dorsal and proximal migration of the radial facet under the influence of the thrusting carpus. (B) Lateral view of a Colles type fracture again showing the dorsal declination of the radial facet, piling up of bone in the dorsal area and the buckling of the dorsal cortex. (C) Again, a lateral view of a Colles type fracture showing a transverse fracture of the lower radius and the lunate fragment driven proximal and dorsal with the dorsal piling up of bone and the buckling of the dorsal cortex.

rovascular dystrophy. These are overlapping terms and they result essentially from increased blood supply to the hand which has a deleterious affect on the collagenous tissue. In the early stages, if recognized, a stellate block or, perhaps, large doses of cortisone, may be of considerable help. However, after collagenous tissue changes have occurred, which are essentially a lack of elasticity and some fibrosis, satisfactory treatment is not available. If the restriction is not too great, physical therapy may be helpful. Ultimately, osteoporosis of the hand can be recognized by x-ray. If thinning of the soft tissue also is present, a good deal of disability usually supervenes. This can only be avoided by early recognition and treatment.

If the bones are osteoporotic, maintaining reduction by a closed means of a Colles fracture may be difficult or impossible. The elderly, alcoholics or people with rheumatoid arthritis may have considerable osteoporosis. The bulbus portion of the lower radius in an osteoporotic person with a Colles fracture will often result immediately in the cancellous bone being represented essentially by a blood clot with thin flakes of cortical bone scattered in the area. In these cases, any reduction achieved manually must be supported by some form of traction or fixation. Traction is seldom satisfactory in the hand; it leads to stiff joints and other problems. Pin fixation through the fingers can result in infection and further stiff joints. In such cases, a primary film may indicate good reduction or reduction with slight radial styloid shortening. This may progress to considerable shortening so that the lower ulna is prominent and radial deviation of

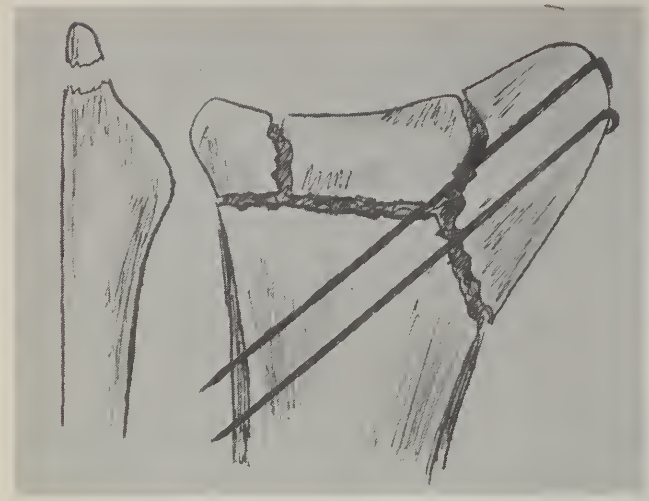

Fig. 4 Colles type fracture showing the classical fragments: radial styloid, distal radioulnar joint fragment, avulsed ulnar styloid and transverse fracture of the low radius. Two Kirschner wire fixation pins through the radial styloid fragment into the proximal cortex of the radius are bent over and buried.

the hand occurs. This may give a satisfactory result in an older person, providing that the fingers have normal function. If this shortening is to be avoided, primary treatment has to be accompanied by a decision to employ some form of fixation. If the lunate fragment is not present or is not displaced, very often several Kirschner wires (Fig. 4) run through the radial styloid, avoiding the extensor tendons and the radial artery and embedding the proximal ends in the more proximal cortex of the radius only. Bending these over and burying them beneath the skin may give adequate fixation and a fairly good morphological terminal result. The final result, of course, will still depend on the mobility and normal function of the fingers. If the lunate fragment is displaced, there will be an incongruous radial facet.

Open operation on these fractures, particularly in the case of osteoporosis with displaced lunate and other fragments, usually is not rewarding. There are too many dorsal structures with which to contend, and fixation is just as hard to obtain in open operation as it is in closed procedures. The displaced lunate fragment may be influenced by making a small dorsal skin incision and introducing a small driver, apprehending this fragment and shoving it back toward the facet. If this is possible, a cross pin through the radial styloid may help to hold it in position. Pinning the radius to the ulna is not recommended because this may limit pronation and supination.

In attempting closed reduction, traction will influence the radial styloid fragment. Compression will influence the fragment at the distal radioulnar joint and pressure with the thumb may reduce the mass of bone or plates created at the dorsal aspect of the lower radius due to the compression and impaction.

Disintegration of the bulbus portion of the radius proximal to the radial facet creates a problem and it may not be solved by any of the above measures. Should this supervene, achieving correct alignment of the radial facet and allowing shortening may be the only alternative (Fig. 5). Primary operation attempting to fill this area with a bone graft usually results in creating a number of fragments that cannot be managed. Fixation will occur at about three weeks and, at that time, shortening of the ulnar may be done to restore morphology of the wrist. Removing the lower ulna will give an unstable wrist, and this is not suggested. If shortening of the ulna is carried out, it is suggested that it be done several inches proximal to the ulnar styloid and that a solid means of fixation be achieved. Otherwise, delayed or non-union of the ulna may occur.

There is a fracture of the lower end of the radius, the result of considerable violence and occurring in younger people, which has the additional features not found in the above description. The character of this type of fracture is extreme comminution of the lower radius and fractures more proximal in the radial shaft. Again, this now does not lend itself to open reduction and, perhaps, is best managed by some form of skeletal traction. This could consist of a small Steinman pin through the distal end of the index and long finger metacarpals proximal to the MP joint and their hood. Counter-traction is obtained by a similar pin through two cortices of the proximal ulna distal to the olecranon. Traction then may be achieved and these two pins fixed by a forearm plaster cast. After four weeks, the pin can be removed and a short forearm cast applied. These fractures are usually industrial and the ultimate result may be degenerative joint disease of the radiocarpal joint in the working man.

One might assume from the above that closed reduction of the Colles type fracture will not always lead to either a good functional or a good morphological result. The following suggestions are made: (1) Estimate the degree of osteoporosis; (2) determine the number of fractures in light of the above description and the displacement of the fragments; (3) attempt to reduce a displaced lunate fragment or an in-

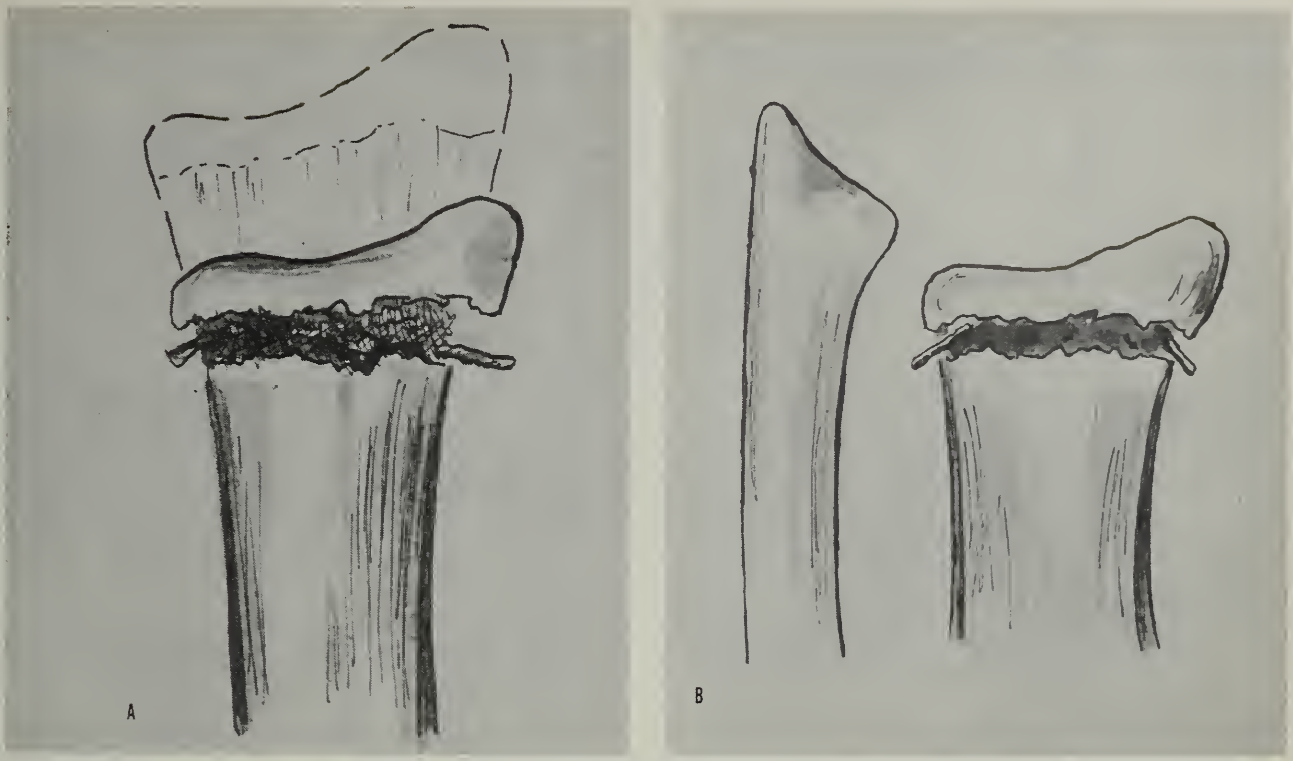

Fig. 5 (A & B) Shortening of the lower radius incident to disintegration of the osteoporotic bulbous portion of the bone.

congruous facet will supervene; (4) recognize loss of integrity of the bulbus portion of the lower radius in the presence of osteoporosis and accept the radial shortening or perform a delayed ulnar shortening; (5) pin fractures that are comminuted and have moderate osteoporosis through the radial styloid to the more proximal cortical shaft with buried Kirschner wires; and (6) perform closed reduction on fractures with firm bony components. Plaster fixation must be a minimum of six weeks. The flexed-wrist position can be corrected at cast changes after four weeks.

Limited finger motion and the possibility of an increased blood supply to the wrist must be recognized. If this is suspected, a stellate ganglion block can be easily accomplished. This can be done with little hazard by placing the thumb on Chevostek's (transverse process of C-6) tubercule on the appropriate side. While the thumb is still there creating pressure, a fine needle can be driven through the skin into the bone. Withdraw the needle about 4 mm. If aspiration reveals no blood, injection of 0.16% solution of Xylocaine and Adrenalin[*] (1.2 million to 1) in the amount of approximately 10 cc will almost invariably give a stellate block and a positive Horner's sign. Should this give considerable improvement, several subsequent blocks usually will be of benefit.

Elevation of the extremity following the treatment of the Colles fracture is mandatory. The hand must be above the elbow and the elbow above the shoulder. If this is not accomplished, venostasis will create edema with hypoxia of the tissue, formation of scar tissue and plastic formation of the collagen with limited finger motion. The patient must be supervised daily until the regime is established. Use of a sling will lead to many problems. The shoulder should be abducted and externally rotated daily to avoid a fibrous ankylosis of the shoulder.

Difficulty with the shoulder should alert one to a hand-shoulder syndrome, as described above. The elbow should be extended daily and pronated and supination should be practiced. A certain number of cases will result in limited pronation and supination due to distal radioulnar joint fibrosis. This can be managed between the fifth and seventh week by manipulation under anesthetic, followed by physical therapy without external support. On manipulation, fibrous tissue usually is torn loose and some swelling occurs at the distal radioulnar joint, but, within six weeks, improvement in the supination of the forearm (which is usually the limited motion) usually follows.

The patient must be taught three things very definitely: (1) Elevation of the extremity without too much elbow flexion; (2) MP flexion and motion; and (3) interphalangeal joint motion.

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[*] The Xylocaine solution is made up of 1 part of 2% Xylocaine; Adrenalin, 1 to 100,000; and eleven parts saline.

Late improvement of the finger function is likely to be long and arduous. All Colles fractures are not going to turn out satisfactorily regarding morphology and function. Loss of some morphology does not necessarily mean a bad result; often, these patients have good function and are happy. The final result will be determined primarily by the finger function which relates to avoiding edema, attention to finger motion and apprehending neurovascular dystrophy. A forearm cast is satisfactory and allows early pronation and supination. I do not believe a longer cast is necessary. Fractures that cannot be held with a forearm cast are not likely to be any better in a long arm cast. Anesthesia can be easily achieved by local infiltration using the above anesthetic solution, making reduction of the fracture possible promptly regardless of other factors. The use of intermedullary pins in a Colles fracture usually is not a practical mechanical approach.

In summary, there are presented the fracture lines characteristic of a Colles fracture. The usual fracture displacement of the created fragments is indicated. Management of the fracture, particularly relating to those cases with osteoporosis, is suggested. The final result will depend more on the management of the finger function than the mechanical treatment of the fracture itself. The point of decision involves knowing when to accept irrevocable radial styloid shortening and when to reinforce a manual reduction with oblique pins through the radial styloid and the shaft to avoid the subsequent radial shortening.

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A unique pilot program to help communities unite to prevent mental breakdowns and to bring former mental patients back into community life is under way in Howard County.

The project is a cooperative venture of the School of Social Work at the University of Missouri-Columbia, the Mid-Missouri Mental Health Center (MMMHC) and Howard County residents.

"We are trying to educate students to see the broad scope of mental health, as a comprehensive delivery service to a specified community," stated Joanne Mermelstein, assistant professor in the UMC School of Social Work and field instructor for the six trainees in the program. All are supported for the current academic year by a grant of $57,111 for "Psychiatric Social Work." The fund comes specifically from the Social Work Training Branch of the National Institute of Mental Health in the U. S. Department of Health, Education and Welfare.

The School chose Howard, a nearby county, for the project. Graduate students, working with Professor Mermelstein, met, interviewed and encouraged community citizens to form the steering committee for the Howard County Association for Mental Health. In it are representatives of four towns, many groups and interests in the county.

W. B. MILL, M.D., J. M. SALA, M.D. *and*
V. L. FOGERSON, M.D., *Springfield*

Hodgkin's Disease

A Retrospective Analysis of 40 Primary Cases

This article presents a review of 52 cases of Hodgkin's disease seen at the Lester E. Cox Medical Center from January, 1961 through April, 1969. New procedures for evaluating these patients are presented and discussed, significant parameters are analyzed and results of therapy are reported. The authors are from the Department of Radiation Therapy at the Medical Center.

THE MANAGEMENT of patients with Hodgkin's disease has changed significantly in recent years. From a "uniformly fatal" disease,[1] the prognosis has improved to the point that early stage disease has a ten-year survival rate of 40% to 60%.[2–4] The changes are related to better definition of the extent of the tumor and more aggressive radiation therapy. The following report describes the experience of a 500-bed private hospital. The patient population is 98% white. A large proportion of the patients come from the surrounding rural area.

During the period of January, 1961 through April, 1969, 54 patients were seen with the diagnosis of Hodgkin's disease. Of these, 11 patients had secondary cases which had received some form of therapy prior to coming to this hospital. In one case, the initial diagnosis was poorly differentiated carcinoma and only at autopsy was the diagnosis of Hodgkin's disease made. This case will not be considered further. In addition, two cases were diagnosed as Hodgkin's disease clinically, but at autopsy were found to be leukemia with lymphadenopathy and anaplastic carcinoma, compatible with lymphoepithelioma. This report will be primarily concerned with the 40 primary cases without prior therapy.

The age distribution is presented in Fig. 1. It is notable that the distribution does not show a significant peak during the third or fourth decades as has been reported.[4-6] Peters and associates demonstrated a correlation between age and stage. In their material, the age distribution for stages I and II peaked in the third decade. In contrast, the age distribution peaked in the sixth decade for stage III patients. The number of patients in this series does not allow this type of analysis. The ratio of males to females is 2:1. This is similar to other reported series.

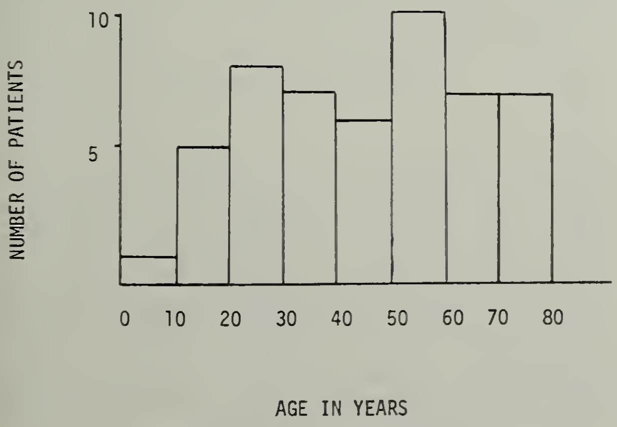

Fig. 1 Age Distribution.

HISTOLOGY

The classification of Jackson and Parker has been used throughout this period. Since 1968, the classification of Lukes and Butler, as modified at the 1965 Rye conference,[7] also has been used. The various diagnoses given and the year of diagnosis are presented in Table 1.

STAGING

All cases are staged according to a modified Peters'[4] classification (Table 2). Because of the small number of cases presenting with involvement limited to organs outside the reticuloendothelial system, these cases are classified as stage IV-P and, thereby, are readily identified for separate analysis. The distribution of cases by stage is presented in Table 3. The cases were staged by a retrospective analysis of the data available at the time of starting treatment. Only in a few of the more recent cases was lymphangiography available.

TABLE 1

HISTOLOGIC DIAGNOSIS—40 PRIMARY CASES OF HODGKIN'S DISEASE

	Year of Diagnosis								
Histologic Type	1961	1962	1963	1964	1965	1966	1967	1968	1969
Hodgkin's disease, nos.*	2	1				2	3	2	
Jackson and Parker classification									
Paragranuloma				1	2			1	
Granuloma	1			2	3	4	3	1	
Sarcoma		1		3	1				1
Lukes and Butler classification									
Lymphocytic predominance								1	1
Nodular sclerosis								2	
Mixed cellularity									1
Lymphocytic depletion							1†		

* Not otherwise specified.
† Initially read as benign and later changed on review.

TABLE 2

STAGING: HODGKIN'S DISEASE

Stage I	The disease is limited to one anatomical region.
Stage II	The disease involves more than one anatomical region, but is limited to one side of the diaphragm.
Stage III	The disease is on both sides of the diaphragm but is limited to involvement of lymph nodes, spleen and Waldeyer's ring.
Stage IV	There is involvement of skin, bone marrow, bone, lung parenchyma, pleura, liver, kidneys, gastrointestinal tract or any tissue or organ in addition to lymph nodes, spleen or Waldeyer's ring.
Stage IV-P	As in Stage IV without involvement of lymph nodes, spleen or Waldeyer's ring.

All stages will be classified as "A" or "B" to indicate the absence or presence of systemic symptoms of fever, night sweats, pruritus or unexplained weight loss greater than 10% of body weight.

TABLE 3

DISTRIBUTION BY STAGE (40 PRIMARY CASES)

Stage I		*Stage III*	
A	11	A	0
B	1	B	10
Stage II		*Stage IV*	
A	4	A	3
B	4	B	4
		P	3

Clinical Evaluation

At the present time, we are performing a rather extensive work-up on primary cases of Hodgkin's disease in patients less than 50 years of age. The rationale for this has been described in many recent publications. In brief, the data reported strongly support the following concepts:

1. Hodgkin's disease may be unifocal in origin[2–4] and spread in a predictable manner.[8, 9]
2. There is a dose of radiation which will eradicate the tumor cells in a high percentage of cases.[10–12]
3. The extent of the disease is frequently greater than our methods of detection demonstrate.[13–15]

Table 4 lists the various procedures and tests used in the initial evaluation.

The first sign or symptom is of particular interest because of its possible relationship to the point of origin of the disease. Table 5 lists the first sign or symptom in the 40 primary cases. As with other reports, the most frequent site of first involvement is the neck. This also is apparent in Table 6, which lists the first objective evidence of disease in stages I and II. The interval between the first appearance of the disease and the biopsy is shown in Table 7.

Lymphangiography has been available in this hospital for approximately two years. It is now used routinely in the work-up. In addition to demonstrating enlarged and involved nodes not otherwise detectable, the lymphangiogram is helpful in directing attention to suspicious nodes which should be biopsied at the time of exploratory laparotomy. The demonstration of enlarged nodes also is helpful from the technical standpoint in the definition of the radiation ports. The importance of preserving the active bone marrow in the pelvic bones necessitates the use of the smallest ports possible.

TABLE 4

CLINICAL EVALUATION

1. History, especially presence of systemic symptoms
2. Complete physical examination
3. Complete peripheral blood count including platelets
4. Bone marrow examination, preferably open biopsy
5. Liver function: Serum alkaline phosphatase, bilirubin, SGOT, LDH
6. Renal function tests: Urinalysis, BUN
7. Intradermal skin tests
8. Serum uric acid
9. Chest x-rays, including laminagrams if there is lung or mediastinal tumor
10. Excretory urogram
11. Bi-pedal lymphangiogram
12. Liver and spleen scans
13. Exploratory laparotomy, when indicated

TABLE 5

THE FIRST SIGN OR SYMPTOM (40 PRIMARY CASES)

Neck node	15
Axillary node	3
Bilateral neck nodes	3
Generalized lymphadenopathy	2
Cervical and axillary nodes	1
Inguinal nodes	1
Abdominal pain	5
Fever	4
Weakness	3
Weight loss	2
Fever and chills	1

Recently, the search for the full extent of the tumor has included an exploratory laparotomy in selected cases. The findings in several reported series[15-17] strongly support the value of this procedure. In addition to exploring the abdomen, biopsies are taken of the liver and all suspicious lymph nodes, and all biopsy sites are marked with silver clips for later localization by x-ray. The spleen is removed and in women of reproductive age, the ovaries are mobilized and moved to a low midline position.

TREATMENT

The initial treatment in the 40 primary cases was as follows: radiation therapy, 28; chemotherapy, six; surgery, two; and combined therapy, four. The various modalities and the stages are presented in Table 8. The radiation therapy varied between local, low dose irradiation to high dose with extended fields. All radiation treatments were with Cobalt-60 at a rate of 800-1,000 rads per week.

TABLE 6

FIRST OBJECTIVE EVIDENCE OF TUMOR (20 PRIMARY CASES, STAGES I AND II)

Neck nodes, left	7
Neck nodes, right	3
Bilateral neck nodes	2
Axillary nodes	2
Mediastinal mass on x-ray	2
Neck and mediastinal nodes	1
Abdominal mass	1
Retroperitoneal mass	1
Bilateral inguinal nodes	1

TABLE 7

DURATION OF INTERVAL BETWEEN APPEARANCE OF TUMOR AND BIOPSY (40 PRIMARY CASES)

Months	*# Cases*	*Months*	*# Cases*
1	15	7-9	3
2	7	10-12	4
3	3	13-24	2
4-6	5	25-36	1

TABLE 8

MODALITIES OF INITIAL THERAPY BY STAGE

Stage	*Radiation*	*Surgery*	*Chemotherapy*	*Rad. and Surgery*	*Rad. and Chemotherapy*
I					
A	9	1		1	
B	1				
II					
A	3				1
B	4				
III					
A					
B	5		5		
IV					
A	2		1		
B	4				
P		1		2	

RESULTS

All patients have a minimum of two years' follow-up, with 20 patients available more than five years. None of the patients was lost to follow-up.

The five-year absolute survival is 45% (Table 9). The five-year survival for stages I and II is 60%. In analyzing these cases, it is apparent that some early-stage cases became obvious stage III or stage IV very soon after starting treatment.

TABLE 9

SURVIVAL

	Total # Cases	*Alive*	*Dead*	*Absolute Survival*	*Absolute 5 Year Survival*
Stage I	12	7	5	7/12 = 58%	3/5 = 60%
Stage II	8	1	7	1/8 = 12.5%	3/5 = 60%
Stage III	10	2	8	2/10 = 20%	1/4 = 25%
Stage IV	10	3	7	3/10 = 30%	2/6 = 33%
All Stages	40	13	27	13/28 = 46%	9/20 = 45%

These errors in staging prejudice the survival data for the early stages. A more extensive initial evaluation may have placed some of these cases in more advanced stages. In the 20 stage I and stage II cases, there are two in whom the local effect of treatment is unknown and 12 who manifested recurrence (Table 10). The interval between the first day of treatment and the appearance of a recurrence was three months or less in five patients (Table 11).

The incidence of contiguous recurrences appears to correlate with the size of the irradiated fields (Table 12). Local recurrence in an irradiated area occurred in three cases of the stage I and stage II patients. These recurrences do not correlate with a low dose of radiation (Fig. 2).

TABLE 10

SITES OF RECURRENCE: STAGES I AND II

	Local	*Local and Contiguous*	*Contiguous*	*Contiguous and Distant*	*Distant*	*Unknown*
Stage I						
A			3	1		1
B			1			
Stage II						
A	2	1	2		1	
B					1	1

TABLE 11

INTERVAL TO RECURRENCE: STAGES I AND II

	Months								
Stage	1	2	3	4	5	6	7-12	13-24	24
I									
A			1	1	1			1	
B			1						
II									
A						1	2		1
B	1	1	1						

DISCUSSION

The extensive work-up described in this presentation requires some explanation for many physicians involved for the first time with this approach to the management of Hodgkin's disease.

The value of the lymphangiogram in demonstrating retroperitoneal lymph nodes is well established. The associated side effects and complications are minimal and acceptable.

The value of abdominal exploration is not so widely known and accepted. The risks are real and must be considered. The only justification for such a procedure is the hope for cure in patients who otherwise would die. This rationale assumes that the best and, perhaps, only chance for cure is through early diagnosis and treatment of all known or suspected areas of disease. This treatment requires high doses of radiation therapy to large volumes of tissue. This is a radical form of treatment which produces side effects and occasionally serious complications. The risk seems reasonable if there is a chance for cure. If, however, the disease has advanced beyond the curable stage, the risks and side effects of radical radiation therapy are not justified.

The first and most important decision to be made in the management of an individual patient is the definition of the goal, i.e., cure or

TABLE 12

CONTIGUOUS RECURRENCES, STAGES I AND II

Size of Irradiated Field	*Total Number Cases*	*Number of Contiguous Recurrences*	*Unknown Local Result*
Local, involved areas only	14	7	1
Wide-field, to include contiguous areas	5	1	1

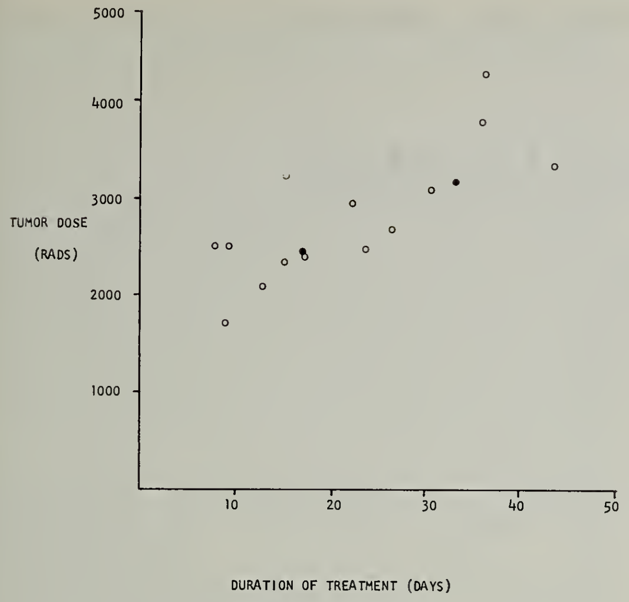

Fig. 2 Radiation dose and recurrence. Open circles represent no local recurrence. Closed circles represent cases recurring in the treated area.

palliation. This decision is based upon the extent of disease as demonstrated by the initial work-up. An alternative approach being investigated[18] is the irradiation of all lymph node areas to a tumoricidal dose without doing an exploratory laparotomy. This approach is used in our stage III patients who are more than 50 years of age and in those younger patients who are not candidates for exploratory laparotomy. The principal disadvantages of this method are (1) the patient may be incurable with radiation therapy and would be better treated with chemotherapy and (2) the left kidney must necessarily receive a high dose of radiation, perhaps compromising its function.

The data available from the 40 primary cases presented support the concept that Hodgkin's disease is curable with radiation therapy in its early stages. The definition of the extent of disease and, therefore, its stage is becoming more complex and more accurate. Until the disease spreads outside the lymph nodes, spleen and Waldeyer's ring, it is theoretically curable.

SUMMARY

Fifty-four patients with a diagnosis of Hodgkin's disease were seen during the years 1961 through April, 1969. The initial evaluation now routinely includes a lymphangiogram and, in selected cases, an exploratory laparotomy. The rationale for such an approach is based on (1) Hodgkin's disease may be unifocal in origin and spread in a predictable manner, (2) there is a tumoricidal dose of radiation and (3) the extent of the disease is frequently greater than our methods of detection demonstrate. Forty primary cases are described and the results of treatment presented.

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Current Concepts in Viral Hepatitis: Diagnosis and Treatment

A Review

VIRAL HEPATITIS may exhibit a wide spectrum of clinical and histological severity. Therapy varies according to the stage and severity of the disease, ranging from simply advice to continue daily activity to the administration of steroids or immunosuppressive drugs or both. This paper presents a review of some facets of our current understanding of hepatitis which influence the selection of appropriate therapy.

HISTORICAL BACKGROUND

Acute hepatitis has long been considered to be of two types, formerly termed infectious hepatitis (IH or Hepatitis A) and serum hepatitis (SH or Hepatitis B). These varieties were thought to be caused by separate viruses transmitted by different routes and characterized by different incubation periods. The distinction between these two diseases became less clear in 1967 with the discovery that varieties with both long and short incubation periods may be transmitted by either the parenteral or the oral route.[1]

Substantial evidence for the viral etiology of hepatitis remains, however, and has been strengthened by the identification of an antigen in sera of some patients with hepatitis. This antigen has been called "Australia antigen, Au(1)"[2] by Blumberg, "(SH) antigen"[3] by Prince and "Hepatitis Associated Antigen (HAA)"[4] by Shulman. Particles of about 200 Å in diameter have been found in the nuclei of hepatocytes by electron microscopy; subsequent tagging of these particles with anti-Au(1) antibodies indicate that they do represent the antigen and, indeed, have the appearance of a virus,[5] partial virus or new form of infectious agent. Although not all the criteria are met for these particles to be viruses, they strongly suggest an infectious agent is present.

The use of Australia antigen has become a useful tool in the classification and clarification of the forms of hepatitis. Krugman, using carefully controlled prospective epidemiological techniques for the study of transmission, incubation and clinical features of viral hepatitis, has demonstrated two clearly defined types of the disease. The incubation periods of these two types coincide roughly to those of IH and SH but have been retermed short incubation or MS-1, hepatitis and long incubation or MS-2, hepatitis.[1] Utilizing recently devised techniques of Au(1) detection, he found that of 40 cases with history and physical findings compatible with long incubation or MS-2, hepatitis, 97% had detectable Au(1). He was unable, however, to detect the antigen in short incubation, MS-1, hepatitis.[6]

Most cases of hepatitis do not progress beyond the acute form and, therefore, patients recover completely; a significant number of patients, however, have biochemical evidence of continued hepatic cell injury.

Subacute Hepatic Necrosis (SHN)

A variation of acute hepatitis and, indeed, the next step in severity of the hepatic lesions of hepatitis is termed subacute hepatic necrosis. The term, subacute, in this context is meant to differentiate the lesion from that of acute yellow atrophy or massive hepatic necrosis. This lesion, SHN, during the acute phase of viral hepatitis, is characterized by large zones of hepatic cell necrosis as well as the "bridges" described by Boyer and Klatskin.[6] These bridges are intralobular and interlobular zones of necrosis and collapse bridging portal triads, central veins or both, associated with a network of loosely arranged slender reticular fibers. Boyer and Klatskin believe that this lesion is the forerunner of chronic aggressive hepatitis and cirrhosis; although every patient with these lesions will not develop CAH, it is from this group with the early lesions of SHN that CAH and, eventually, postnecrotic cirrhosis will emerge.

Chronic Persistent Hepatitis

Chronic persistent hepatitis is a term applied to the disease in patients who remain clinically well but who exhibit persistent or periodic abnormalities of liver functions and in whom Australia antigen may be detected in their serum 20% to 42% of the time. The liver biopsy reveals only minor focal portal inflammation with bile ductule proliferation but without hepatocellular necrosis or destruction of the limiting plate of hepatocytes.[7] These cases have benign natural history, do not develop cirrhosis and require no specific therapy.

Chronic Active Hepatitis or Chronic Aggressive Hepatitis (CAH)

These terms are used to describe those patients who, following acute viral hepatitis, have elevated hepatic enzyme levels in their serum for extended periods of time, usually longer than three months, reflecting continuing hepatic cell damage. Many requirements have been rather arbitrarily proposed regarding levels of enzyme elevations, duration of disease and, perhaps, other features. However, a study in progress at the Mayo Clinic invokes perhaps the most rigid criteria for the diagnosis of CAH.[8, 9] Patients showing a ten-fold increase in serum transaminase levels or five-fold increase associated with a two-fold increase in serum gamma globulin levels were admitted to their study if, in addition, they demonstrated histologic and clinical evidence of active disease for at least ten weeks. The less rigid criteria of Mistilis and Blackburn probably encompass more cases of CAH. They believe that the serum SGOT level is the best index of activity but it seldom exceeds 800 units; levels of 200 units to 300 units are more commonly seen. Hyperglobulinemia is present but is rarely extreme, and in only 10% of their cases was the serum globulins above 7.0 gm/100 ml.[10–12]

The histologic features of CAH include piecemeal necrosis of hepatic cells, infiltration of parenchyma and portal areas with round cells and variable amounts of fibrosis, which often indicate progression to cirrhosis. Rubin places importance on the early appearance of cellular necrosis, which consist of single cell necrosis, balloon cells and acidophilic bodies with progression to confluent necrosis and portal inflammation.[13] Popper believes that the extent of the disease can be determined by the degree of the histologic lesion designated as "piecemeal necrosis."[14] This is a portal tract accumulation of lymphocytes, histiocytes and plasma cells accompanied by proliferation of bile ductules, erosion of the peripheral layer of parenchyma (limiting plate) and loss of individual hepatocytes (Fig. 9). Other investigators, notably the group from the Mayo Clinic, did not always find the presence of piecemeal necrosis and therefore did not emphasize it as a diagnostic criterion.[8]

The presence of positive LE cell preparations, smooth muscle antigens (SMA) and antinuclear antibodies (ANA) in some patients with chronic aggressive hepatitis have led many investigators to suggest a "takeover theory." In this theory, a virus may damage hepatocytes with resultant formation of antibodies to components of the damaged hepatocytes, with initiation of an autodestructive reaction in the liver.[15–17] No proof for this theory exists in that no liver antigen has yet been directly implicated in an autoimmune mechanism, but this failure may be due to lack of sensitive methods of detection.[18] Australia antigen has been detected in the serum of 10%[19] to 25%[20] of chronic aggressive hepatitis patients. LE cells have been detected in about 15% of cases of CAH.[11] Chronic aggressive hepatitis patients with positive LE cells have very low incidence of positive Au(1); conversely, patients with positive Au(1) have a low incidence of LE cells.[4] Therefore, it seems probable that

The authors review current understanding of chronicity in hepatitis and summarize the spectrum of chronic hepatic injury following acute viral hepatitis. They also outline the criteria for the diagnosis of chronic persistent hepatitis, subacute hepatic necrosis and chronic aggressive hepatitis. They emphasize the need for repeated biopsy and clear understanding of the diagnostic terminology used by the clinician and the pathologist. Doctor Shaffer is a Special Fellow in Gastroenterology, Doctor Pyron is a former Resident in Medicine and Doctor Winship is Professor of Medicine and Director, Division of Gastroenterology, University of Missouri School of Medicine. Doctor Shaffer's work is supported by NIH Grant #5 FO3 AM48171-02.

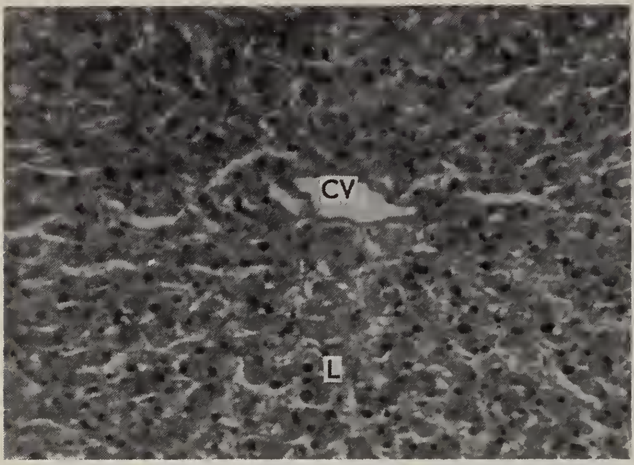

Fig. 1 Normal hepatic lobule (L) with central vein intact (CV) (Hematoxylin and eosin stain, X 50).

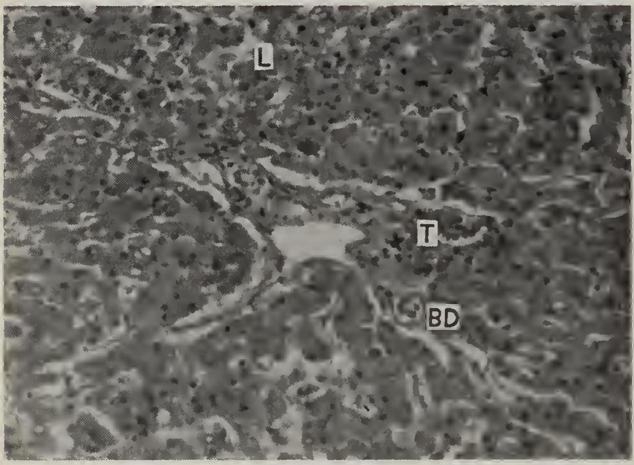

Fig. 2 Normal portal triad (T) lobule (L) bile duct (BD) (Hematoxylin and eosin stain, X 50).

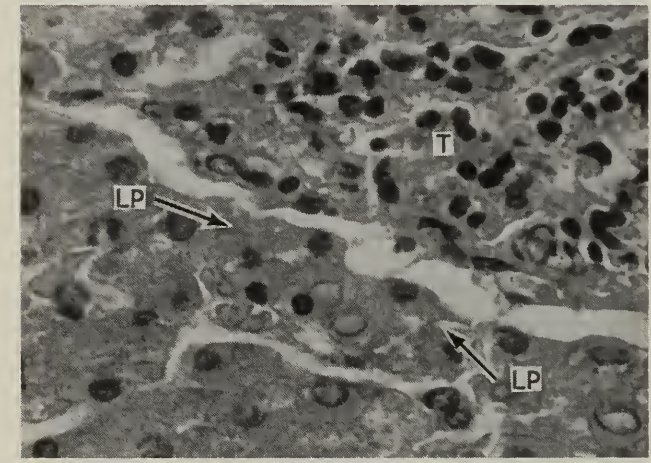

Fig. 3 Normal triad showing intact limiting plate (LP) formed by row of normal hepatocytes (between arrows) (Hematoxylin and eosin stain, X 200).

the presence of LE cells or Au(1) has important immunological implications and, in fact, may separate CAH into subdivisions which will prove useful in studying the diseases and their response to treatment.

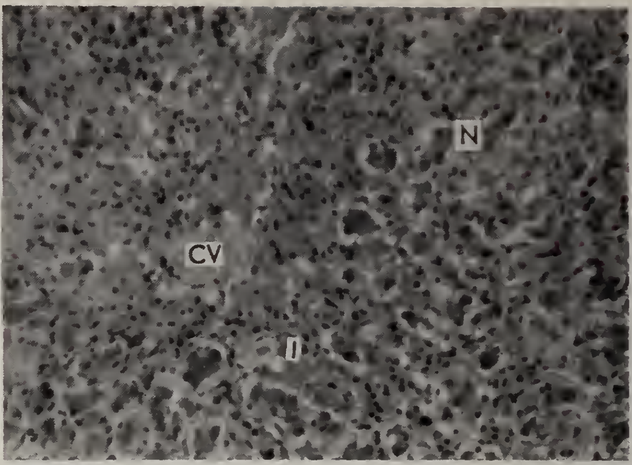

Fig. 4 Acute viral hepatitis c̄ necrosis (N) and inflammatory cells (I), central vein (CV) (Hematoxylin and eosin stain, X 50).

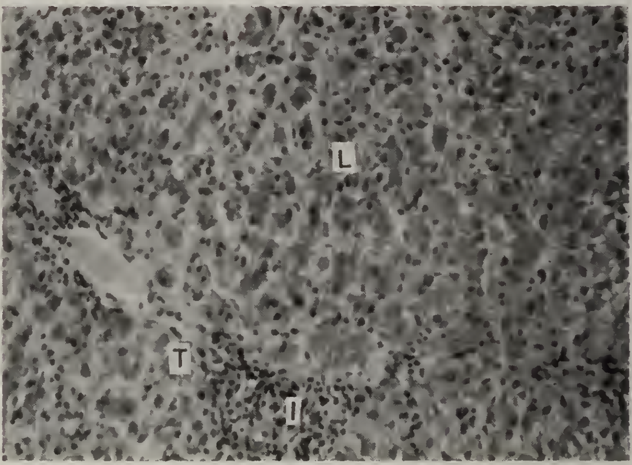

Fig. 5 Acute viral hepatitis. Periportal inflammation (I), portal triad (T), lobule (L) (Hematoxylin and eosin stain, X 50).

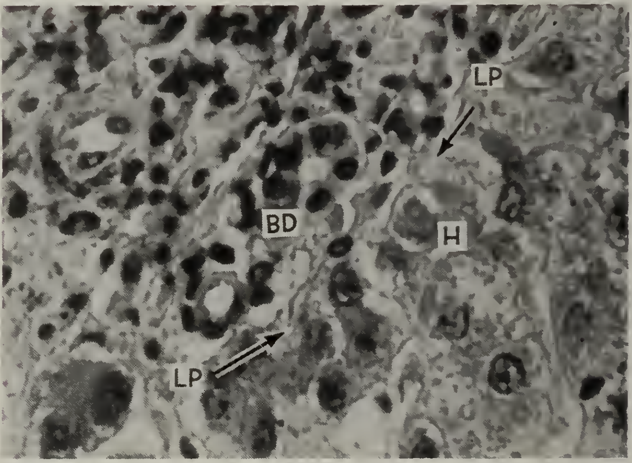

Fig. 6 Acute viral hepatitis. Triad area showing intact limiting plate (LP) hepatocytes (H) between arrows, bile duct (BD) (Hematoxylin and eosin stain, X 200).

The definition of chronic aggressive hepatitis, which we have adopted, is as follows: CAH is an inflammatory disease of the liver of as yet

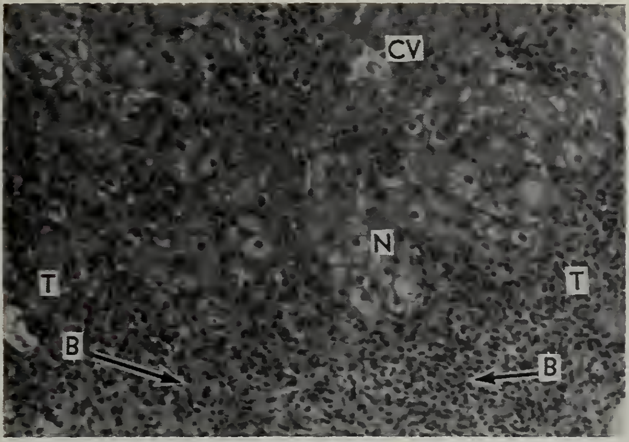

Fig. 7 Chronic aggressive hepatitis. Note the marked necrosis (N) and inflammation between triads (T) forming a bridge (B) between arrows, central vein (CV) (Hematoxylin and eosin stain, X 50).

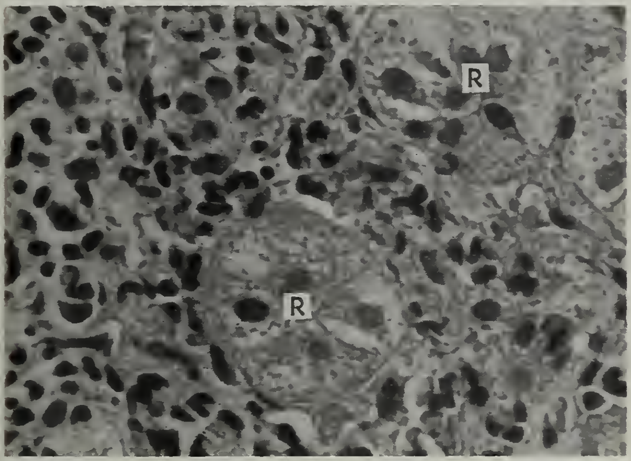

Fig. 8 Chronic aggressive hepatitis. Note inflammation and rosette formation (R) indicating attempts at hepatic cell regeneration (Hematoxylin and eosin stain, X 200).

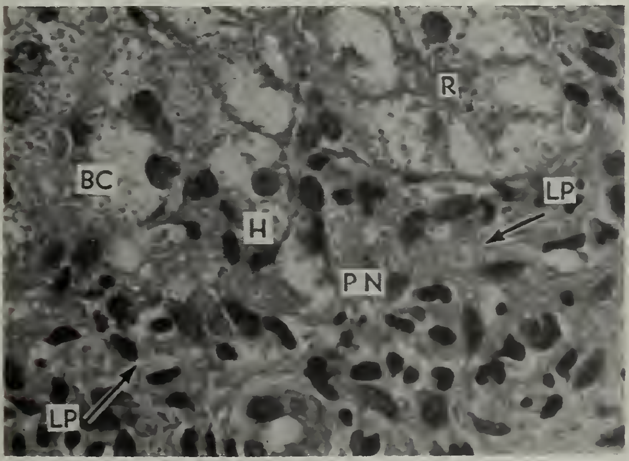

Fig. 9 Chronic aggressive hepatitis. Note destruction of limiting plate with hepatocyte (H) undergoing degeneration piecemeal necrosis (PN) with balloon cells (BC) and rosette formation (R) (Hematoxylin and eosin stain, X 200).

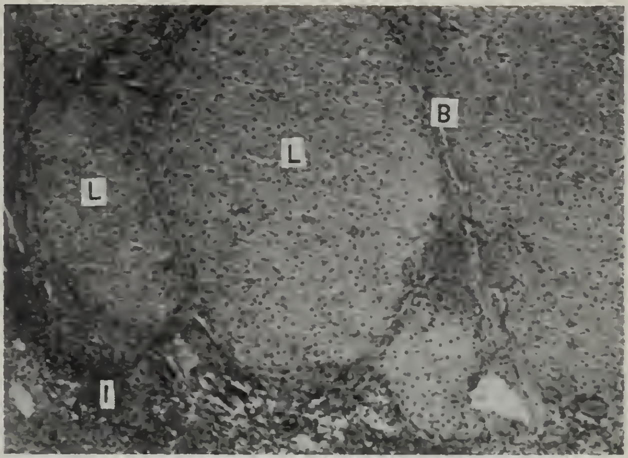

Fig. 10 Postnecrotic cirrhosis. Note multiple pseudolobules (L) with inflammation (I) and collapse and bridging (B) (Hematoxylin and eosin stain, X 20).

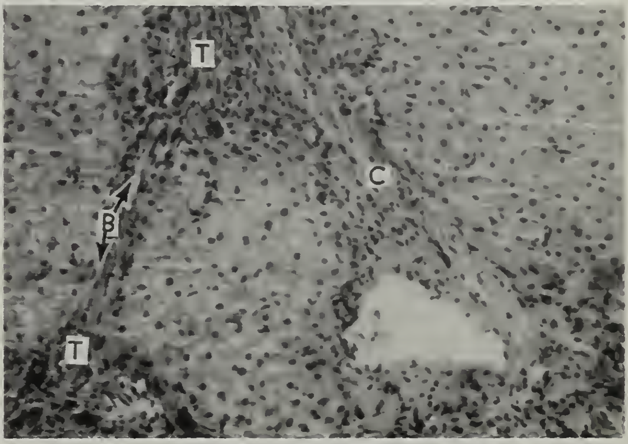

Fig. 11 Postnecrotic cirrhosis. Periportal inflammation around triads (T) with bridging (B) and collapse (C) (Hematoxylin and eosin stain, X 50).

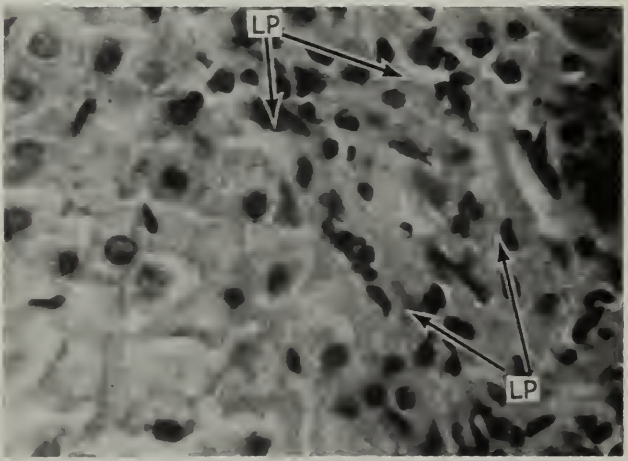

Fig. 12 Postnecrotic cirrhosis. Area of limiting plate (LP) widened but no definite piecemeal necrosis (Hematoxylin and eosin stain, X 200).

unknown etiology which has a variable but usually unremitting course and is characterized by persistently high serum transaminase and gamma globulin levels with histologic changes of bridging lesions of hepatic parenchymal cell degeneration and necrosis, together with inflammatory cell infiltration and varying degrees of fibrosis, with or without frank cirrhosis. Microscopic pictures of normal liver (Figs. 1-3), acute viral hepatitis (Figs. 4-6), chronic aggressive hepatitis (CAH) (Figs. 7-9) and postnecrotic cirrhosis (Figs. 10-12) are included to compare the important pathologic differences in the spectrum of hepatic injury.

PATHOLOGIC STUDY

Because ambiguities exist concerning etiologies, definition of terms, selection of diagnostic criteria and significance of histologic findings, the ability of pathologists and gastroenterologists to agree is often difficult, even within a specific hospital. Yet, recognition of the disease is essential for institution of appropriate therapy. In order to assess the uniformity of opinion in our staff, we designed a simple experiment which emphasizes the diagnostic difficulties in this disease. Eighteen patients diagnosed in the past as having severe hepatitis, SHN or CAH were studied in two phases. In the first phase, each of three members of the Division of Gastroenterology at the University of Missouri Medical Center examined coded liver biopsies stained with hematoxylin and eosin and Mallory's trichrome stains. No clinical data were provided. Degree of inflammation, type and location of necrosis, signs of regeneration, presence of fibrosis and cirrhosis were recorded. A final diagnosis was then made. In the second phase, a brief history with pertinent physical findings and laboratory data were provided with each case; the previous 18 cases plus an additional ten cases of various hepatic diseases were included. The procedure or phase one was repeated. The final diagnoses of the gastroenterologists were compared to those of their gastroenterologist colleagues as well as with the official pathology report. No effort was made to have a single member of the Pathology Department review the biopsy.

In the first phase, no two gastroenterologists agreed in their diagnoses in 24.1% of the cases. No gastroenterologist agreed with the pathologist's diagnosis in 51.9% of the cases. In the second phase, with the addition of clinical data, disagreement was reduced to 16.5% among gastroenterologists and 40.7% with the pathologist's diagnosis. It is interesting to note that the terminology used in final diagnoses differed though agreement was quite uniform in describing the presence of piecemeal necrosis, bridging lesions, degree of inflammation and others.

CLINICAL APPROACH TO THE PATIENT WITH CAH

The degree of disagreement illustrated above emphasizes some of the difficulties encountered in choosing clinical and pathological criteria which dictate intervention with potent and potentially dangerous drugs, such as adrenocortical steroid hormones or immunosuppressive agents, such as azothioprine (Imuran). If one is aggressive and follows the approach of Boyer and Klatskin, he will initiate therapy in all patients with biopsy evidence of SHN or "bridges" with 60 mgm to 80 mgm of prednisone per day.[6] However, if conservative, the physician will wait until more of the criteria for chronic aggressive hepatitis are met.

We suggest the following approach to the patient presenting with evidence of acute or chronic hepatitis:

A. Careful history with special attention to onset and duration, exposure, transfusion, drug use or abuse.

B. Careful physical examination, with a thorough search for evidence of chronic liver disease (spider angiomas, palmar erythema, nail changes, hepatosplenomegaly, ascites, joint pain, skin eruptions and others).

C. Laboratory studies: CBC, platelet count, prothrombin time, SGOT or SGPT, bilirubin with partition, protein electrophoresis, LE prep, Australia antigen (and SMA, ANA where available).

If the patient is ill, he should be hospitalized for liver biopsy and observation until enzymes return to near normal. If the patient has positive Au(1), whether ill or not, he should be admitted for liver biopsy and the above evaluation. As mentioned previously, the presence of Au(1) indicates the presence of long incubation hepatitis, which has been implicated in the development of SHN and CAH whereas short incubation hepatitis has not.

The clinician should understand what the pathologist means by his diagnostic label of a liver biopsy. At our institution, we have found that agreement is achieved in virtually all difficult cases by the discussion of clinical and histologic findings. If the biopsy shows extensive necrosis with "bridges" or obvious piecemeal necrosis without far advanced cirrhosis, the decision for steroid therapy should be made.

If steroids are initiated, 40 mgm to 60 mgm of prednisone should be used daily with slow tapering while monitoring SGOT or SGPT until they are normal. Before discontinuing steroids, a repeat biopsy should be done at four or six months. If significant inflammatory activity and hepatic cell destruction are present, steroids should be continued for at least 18 months. Careful periodic follow-up on a regular basis with attention to blood pressure and serum glucose is required to recognize or prevent serious steroid side effects. It must be emphasized that liver biopsy remains the best indicator of continuing activity, as well as of prognosis in the patient with CAH.[21]

Results of the use of immunosuppressive agents, notably azothioprine are pending until completion of a controlled study by the group of investigators at the Mayo Clinic as well as work underway at other centers, and these drugs should be reserved for medical center use until all evidence is completely evaluated.

Patients who meet the criteria for chronic persistent hepatitis should not be treated. Patients who, when initially biopsied, have a predominant picture of postnecrotic cirrhosis with little or no evidence of continuing inflammatory activity will probably not benefit from steroids.

Patients with a positive test for Australia antigen should not give blood. At present, there is no evidence to restrict Au(1) carriers from working as food handlers. Some authorities suggest that dentists with positive Australia antigen should wear gloves.

SUMMARY

The authors have attempted to review our current understanding of chronicity in hepatitis and have summarized the spectrum of chronic hepatic injury following acute viral hepatitis. The criteria for the diagnosis of chronic persistent hepatitis, subacute hepatic necrosis and chronic aggressive hepatitis are outlined. Controversy regarding these criteria is discussed with emphasis placed on the need for repeated biopsy and clear understanding of the diagnostic terminology used by the clinician and the pathologist. Careful review of the clinical and histologic findings must be made before steroid therapy is instituted. If initiated, the steroid therapy must be monitored closely and correlated with clinical status, serum transaminase levels and the histologic findings of repeated liver biopsies.

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Reprints: Robert D. Shaffer, M.D.
University of Missouri
N. 408 Medical Center
Columbia, Mo. 65201

A group of St. Louis psychiatrists will interview several hundred psychiatric outpatients and their close relatives to test and refine a new classification system for diagnosing mental illnesses. The first year of the proposed four-year study will be supported by a $53,500 grant announced by HEW's National Institute of Mental Health, Health Services and Mental Health Administration. **Dr. Robert A. Woodruff, Jr.**, associate professor of psychiatry at Washington University, is the principal investigator.

DARRYL WALLACE, M.D. *and*
J. EDWARD SLANKARD, M.D., *Kansas City*

Local Mass Cytologic Screening For Cancer of the Cervix

THE CERVICAL CANCER PROJECT was initiated at St. Luke's on Sept. 1, 1966 as a five-year program funded through a Public Health Service grant to St. Luke's Foundation for Medical Education and Research. The primary objective is the early detection and control of cervical cancer through a screening service to women in a low income-high risk segment of the population. Screening has been conducted at the outpatient department of St. Luke's Hospital; Richard Cabot Clinic; Jackson County Hospital; Jackson County Public Health Department in Independence, Mo.; Florence Crittenton Home; and clinics of the Planned Parenthood Association of Greater Kansas City.

Secondary objectives of the screening program have been the evaluation of treatment and follow-up techniques, the training of interns and residents in the Department of Obstetrics and Gynecology and the education of paramedical personnel. Also of considerable importance has been the education of lay people concerning cervical cancer.

Since the original work by Papanicolaou, the detection of cancer of the cervix has become a social, economic and public health problem. The goal to eliminate the problem by effective screening of all women has yet to be realized. However, the authors project that this report on their positive experience with a local mass-screening study clearly demonstrates the merits of such a program.

Doctor Wallace is a Resident in Obstetrics and Doctor Slankard is from the Department of Obstetrics and Gynecology at St. Luke's Hospital. This work was supported by Public Health Service Grant #63962 and St. Luke's Hospital Foundation for Medical Education and Research.

This is the first in a series of articles from the Department of Obstetrics and Gynecology at St. Luke's Hospital.

Smears are taken directly from the squamocolumnar junction of the cervix with an Ayre spatula. The smears are immediately sprayed with a water-soluble fixative and transferred to the laboratory for staining. All slides are screened by the same cytotechnologists. Abnormal slides and 10% of all negative slides are reviewed by a pathologist.

Slides are reported in one of four categories—negative, suspicious, positive or unsatisfactory. Patients with positive smears or two consecutive suspicious smears are admitted to the hospital for cervical conization.

Tables 1 through 7 summarize our results. A total of 15,766 patients were screened with 24,569 smears. There were eight cases of invasive squamous cell carcinomas, 216 cases of in situ lesions and 185 cases of dysplasias.

Table 1 shows the results of the initial smears. Table 2 reports the results of biopsy on clinically indicated lesions with negative initial smears. The one case of invasive carcinoma reinforces the fact that smears of clinically invasive lesions may be negative.

Table 5 summarizes the follow-up on initially negative smears. Tables 6 and 7, respectively, indicate the results of progression from negative to suspicious or positive smears.

An "incipient" stage of cancer of the cervix was described as long ago as 1910 by Rubin.[1] This went almost unnoticed until the early 1940's. Over the past 25 years, much has been written regarding the dysplasia—carcinoma in situ—invasive carcinoma sequence. Mass cytologic screening has been used only for the past 15 years. Other screening, even today, remains haphazard. Even in the most complete screening programs, such as the British Columbia study, 25% of patients at risk remain unscreened.[2]

It is difficult to compare results of screening programs. Results depend on percent of newly-screened individuals. In a closed program with multiple screenings per patient, a yearly decrease in positive returns could be expected. This has been demonstrated by Boyes in British Columbia.[2] Overall, the incidence of invasive cer-

TABLE 1

15,766	Initial smears
14,800	Negative
664	Suspicious
	42/1000
190	Positive
	12/1000
112	Unsatisfactory

TABLE 2

14,800	Initally negative smears with clinical indications for biopsy
1	Invasive cancer
4	Dysplasia
24	No malignancy

TABLE 3

664	Initially suspicious smears
362	No histologic follow-up recommended
131	Diagnosis pending
1	Invasive
61	Carcinoma in situ
79	Dysplasia
30	No malignacy

vical cancer can be expected to fall and the incidence of preinvasive lesions can be expected to rise. This has been demonstrated in all programs with multiple screenings.

It is still not known what percent of in situ cancer will progress to invasion. There is still some question about the contribution of in situ detection and elimination of these lesions. Mortality from cervical cancer in British Columbia[3] has not shown a decrease, while in other areas, such as the Louisville study of Christopherson, the mortality rate has declined.[4]

A total of 253 positive smears returned from our study for a rate of 1%. This compares to 3% in a study from a high-risk venereal disease clinic in New York City and to 0.7% in a program in Aberdeen, Scotland.[5, 6] Our detection rate of carcinoma in situ was 14/1000 smears. This compared with 3.6/1000 in British Columbia, 7.2/1000 in Aberdeen, Scotland and 12.5/1000 in the study of the venereal disease clinic in New York City.[3, 5, 6]

In summary, a local screening program for cervical cancer is described. This has resulted in the detection of eight invasive cancers of the cervix and 216 in situ lesions. The Cancer Control Program of the U. S. Public Health Service has determined that $9 accrue for every $1 spent on cervix cancer control. With all factors considered, one must conclude that the positive effects of a mass cytologic screening for cervix cancer have been demonstrated and the evidence is so overwhelmingly convincing that we can no longer afford to debate the merits of such a program.

TABLE 4

190	Initally positive smears
6	Invasive
109	In situ
38	Dysplasia
12	No malignancy
25	Pending

TABLE 5

8,803	Repeat smears of initally negative smears
8,419	Negative
261	Suspicious
	30/1000
63	Positive
	7/1000
60	Unsatisfactory

TABLE 6

261	Suspicious smears following initial negative smears
118	No histologic follow-up recommended
67	Pending
0	Invasive
18	In situ
44	Dysplasia
14	No malignancy

TABLE 7

63	Positive smears following initial negative smears
0	Invasive
28	In situ
20	Dysplasia
3	No malignancy
12	Pending

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(Continued on page 442)

Special X-ray Exhibit

SIDNEY RUBIN, M.D., RODGER LAMBIE, M.D. *and*
EDWIN HERMAN, M.D., *Kansas City*

Radiologic Problem Case

A 29-YEAR-OLD WHITE MAN was admitted to the hospital for evaluation of chest pain. Initial onset of chest pain dates back six years and was fairly severe and sudden in onset. Since then, the chest pain has been intermittent and not severe enough to incapacitate him or cause him to seek medical advice. Three months prior to admission, the chest pain steadily increased in frequency and duration to the point where he began having chest pain at rest. The pain is described as a dull pressure in the chest which radiates into the left shoulder and arm and is exacerbated with activity. He has also noted a shortness of breath and increasing fatigability.

Past History: At 5 or 6 years of age, the patient was diagnosed as having Marfan's syndrome as the result of a work-up for decreased visual acuity. He underwent eye surgery with some improvement, but still has some impairment of vision.

Deformities of his rib cage and spine, he believes, are the result of traumatic injuries he sustained while playing with a friend. There was no specific treatment for the injuries. At age 26, he underwent surgery for bilateral hammertoes. Since adulthood, he has had multiple episodes of gonorrhea, all of which supposedly were treated adequately.

Family History: The patient has a family history strongly suggestive of Marfan's syndrome. His father, although normal in size, died at an early age, supposedly of an acute myocardial infarct. His paternal aunt and uncle both have had heart surgery. He has several other relatives living in Germany who are very tall. The patient has two children, who are both tall and lanky, but have never been worked up for Marfan's syndrome.

Physical Examination: Physical examination revealed a 6′11″ tall, lanky white man. The patient has a mild pectus excavatum and a right kyphoscoliosis. His extremities appear disproportionately long, and he has a marked arachnodactyly and a high-arched palate

Eyes: The patient has anisocoria, the left pupil being larger than the right. There was almost a complete lack of convergent gaze, and he has bilateral iridodenesis. Ectopia lentis was not seen.

Heart: Blood pressure was 130/40; pulse rate was 80 beats per minute. There was no increase in jugular venous distention. PMI is palpable at the sixth intercostal space 4 cm lateral to the midclavicular line. There was a grossly palpable diastolic thrill at the left sternal border. A Grade IV holodiastolic murmur was heard loudest at the left sternal border and radiated diffusely over the precordium. The remainder of the physical examination was not remarkable.

Laboratory Data: EKG—Normal sinus rhythm with left ventricular hypertrophy. *Phonocardiogram:* Diastolic blowing murmur with a loud second heart sound suggesting aortic insufficiency. *Vectorcardiogram:* Left venticular hypertrophy. The SMA 12 and the urinalysis were completely within normal limits. Hemoglobin level, 16.4 gm/100 ml; hematocrit reading, 47%; white blood cell count, 9,400/cu mm. VDRL nonreactive. The electrolytes were within normal limits with a slight excess in chlorides.

Differential Diagnosis: 1. Marfan's syndrome. 2. Angina pectoris. 3. Congestive heart failure. 4. Aortic insufficiency.

Radiological Findings: PA, left lateral and fluoroscopic observations of the heart revealed the cardiac silhouette to be increased in its transverse diameter, mainly in the region of the left ventricle. There appeared to be normal pulsations with normal hilar root shadows. There was no displacement of the barium-filled esophagus other than slight left ventricular pres-

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The authors of this series of articles presenting unusual radiologic problem cases are from the Department of Radiology, Menorah Medical Center, where Doctor Rubin is Chairman. They were assisted in this case by Frank Mantz, Pathologist.

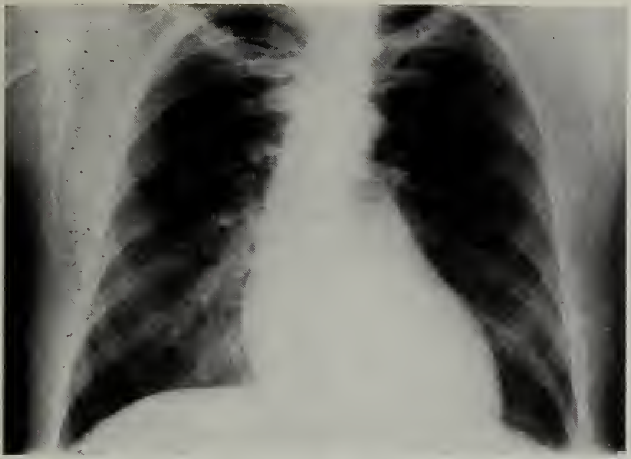

Fig. 1 PA chest showing downward enlargement of the left ventricle. There is a scoliosis of the thoracic spine with the curvature directed to the right. Ascending aorta does not appear abnormal.

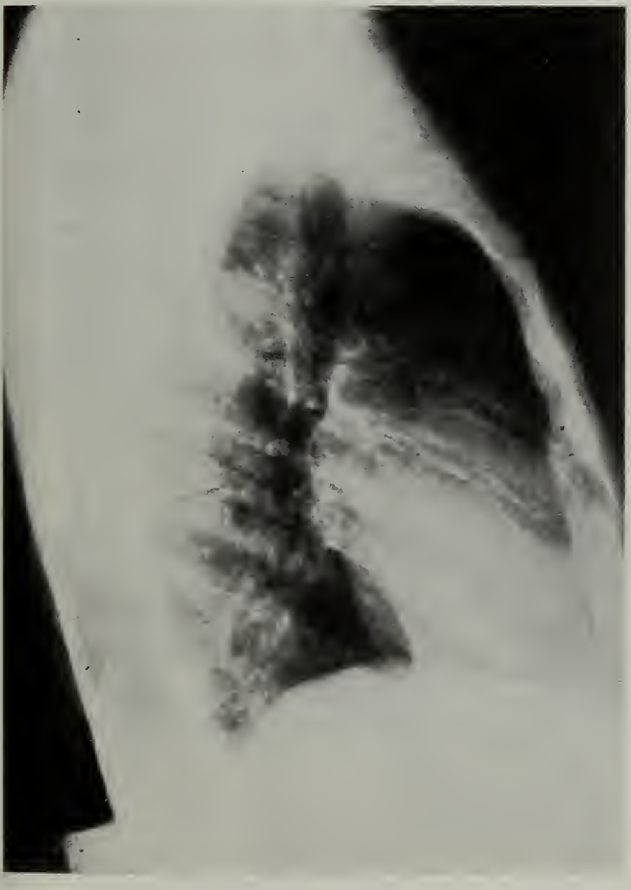

Fig. 2 Left lateral view showing no abnormalities of the ascending aorta.

sure upon the lower esophageal segment. The ascending aorta appeared entirely normal in the PA projection (Fig. 1), as well as on the true lateral view (Fig. 2). On the left anterior oblique view, there was a slight bulging noted in the retrosternal clear space, suggesting slight enlargement of the ascending aorta (Fig. 3). There was a kyphoscoliosis of the thoracic spine with the convexity directed to the right. In addition, a mild pectus excavatum was noted.

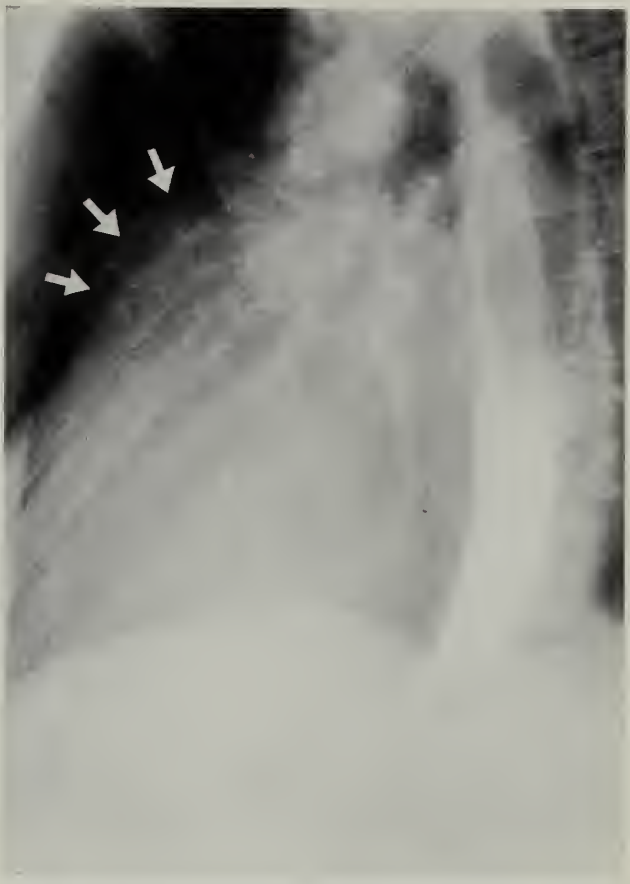

Fig. 3 Left anterior oblique with barium swallow showing left ventricular enlargement. Arrows showing slight bulge of ascending aorta into the anterior clear space.

Films of both hands showed marked arachnodactyly.

Thoracic aortogram showed aneurysmal dilatation of the aortic root as well as the proximal ascending aorta (Fig. 4). The aortic sinuses were poorly defined and somewhat effaced, indicating aortic valve incompetence. There was an abrupt transition from the dilated area to normal ascending aorta. These findings are consistent with cystic medial necrosis of the ascending aorta secondary to Marfan's syndrome.

DISCUSSION

Cystic medial necrosis of the ascending aorta is a well-known entity characteristic of Marfan's syndrome. Only recently, attention has been focused upon another group of patients who do not show the overt manifestations of Marfan's syndrome, but who have identical changes within the ascending aorta. Various names have been associated with this group of patients. However, idiopathic cystic medial necrosis seems to be the most fitting. The importance of early

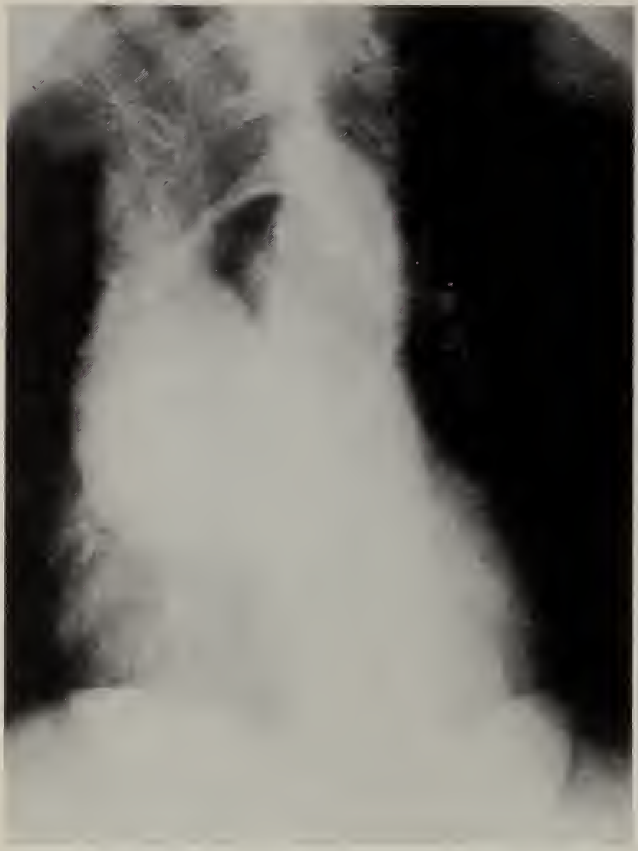

Fig. 4 Thoracic aortogram showing aneurysmal dilatation of the aortic root and proximal ascending aorta. The aortic sinuses are effaced and there is a marked transition from dilated to normal aorta.

diagnosis of cystic medial necrosis of the ascending aorta becomes quite apparent from the fact that there is a high incidence of dissection associated with cystic medial necrosis in Marfan's syndrome and the idiopathic group. The changes usually are confined to the aortic root and the ascending aorta, with an abrupt transition to normal tissue. This feature of cystic medial necrosis, associated with Marfan's syndrome and the idiopathic variety, make it amenable to surgery if detected at an early stage.

The most important clinical finding is that of aortic valve insufficiency. The plain chest film findings may be variable, but all show a predominant left ventricular enlargement. Widening of the ascending aorta is the second most prominent plain film finding. In the PA projection, the widening may present in one of several fashions. There may be no abnormal contours and it may blend in with the cardiac silhouette. The dilated aortic root and ascending aorta may bulge to the right, blending in with the right heart border and causing a smooth increased convexity, or it may bulge as an isolated area of increased convexity with a notch between the right atrium and the dilated ascending aorta. At times, the dilated aorta may bulge both to the right and to the left. Lateral and oblique views, particularly the left anterior oblique views, are more helpful in demonstrating the early dilation of the aortic root and ascending aorta. Early bulging may be detected encroaching upon the anterior clear space.

Thoracic aortography is a must in assessing the exact size and extent of the aneurysm. The angiocardiographic findings in cystic medial necrosis of the ascending aorta are quite characteristic in that the dilated aorta is symmetrical in character. The aortic sinuses also are markedly dilated in a symmetrical fashion, causing marked aortic valve incompetence.

Pathological Diagnosis: 1. Cystic medial necrosis of the ascending aorta. 2. Aneurysmal dilatation of the ascending aorta without dissection.

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(Continued from page 439)

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In Memoriam

Bruce, Paul C., M.D., Excelsior Springs, a graduate of the University of Pittsburgh, 1914; member Clay County Medical Society; age, 81; died April 2, 1972.

Will, Leo A., M.D., Venice, Fla., a graduate of St. Louis University, 1910; member St. Louis Medical Society; age, 84; died April 10, 1972.

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President's Message

At the time you read this communication, it will be the eleventh hour for making your arrangements to attend the AMA Annual Convention in San Francisco on June 18-22, 1972. Outstanding on the program, of course, will be the open hearing at which the AMA will seek grass roots opinions regarding the restructuring and revitalizing of the American Medical Association. Also of great interest are the recommended changes by the Board of Trustees in the times and places of future meetings. Three options will be considered: (1) each meeting to be held at a different site, (2) all meetings to be held in Chicago, (3) June meetings to be held in Chicago and fall meetings in different parts of the country. Even though these options will be debated and decided by the AMA House of Delegates, you certainly can make your opinion felt by coming to the Missouri Room and conferring with your Delegates and Officers. Be sure that you are invited and urged to do so.

Walter T. Gunn, M.D.

The AMA's Office of the General Counsel again admonishes physicians to post a sign "in a prominent place" advising patients that a list of base fee schedules is available for examination. IRS agents have already been checking in some of the urban areas of the state. Also, the Department of Labor has ruled that physicians are subject to the Williams-Steiger Occupational Safety and Health Act of 1970. Under the Act, each employer must display a poster supplied by the Occupational Safety and Health Administration.

The message to "Get Involved," which was delivered in Kansas City, did not totally fall on deaf ears. The Woman's Auxiliary's "Legislative Day" held on Wednesday, April 12 in Jefferson City attracted more than 100 participants. Under the guidance and tutelage of Sen. William J. Cason of Clinton, Auxiliary members were able to observe and be instructed in the mechanisms of state government. Some consideration should be given by the Planning Committee to include this type of program for the MSMA members either at a Clinical Session or as part of the Officers Conference.

"Without your help

. . . I simply
would not have
made it through
medical school!"

(The following letter was received on Oct. 1, 1971 from a physician who, as a student, received financial assistance from the Missouri State Medical Association members who have contributed to the Missouri State Medical Foundation. It is printed with his permission.)

Dear Doctor:

"Thank you very much for your thoughtful letter concerning receipt of my final payment on my medical student loan.

"I can well remember the feeling of destitution associated with being a reasonably good student but lacking funds with which to enroll for the next semester in medical school. Having always been, perhaps, more than adequately endowed with pride, it was a lesson in discipline and humility to go seeking financial assistance. However, the effort brought me in contact with some very nice people who really do a lot to keep one's faith in human nature alive.

"I sincerely appreciate the efforts which you and others put into the Missouri State Medical Foundation and all other student loan funds. You should feel a quiet heroism for the assistance you lend to needy students . . . without your help, I simply would not have made it through medical school."

The Missouri State Medical Foundation—MSMF—was created by the Missouri State Medical Association for the express purpose of giving financial assistance to deserving young Missourians who will be tomorrow's doctors.

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Woman's Auxiliary

HEALTH EDUCATION IS THE KEY

The topic of Health Education has drawn everyone's attention for a long time. However, its importance and need have never been as apparent as after the recent Conference on Health Education sponsored by the AMA and its Woman's Auxiliary in cooperation with 70 other national volunteer organizations.

Five of our members were privileged to represent the Missouri Auxiliary at the Conference at the Drake Hotel in Chicago on April 26-28. For us and the many others attending, the conference increased our level of awareness of the need for all citizens to develop a sense of personal and community responsibility for solving health problems.

Mrs. Keith D. Jones
President

Health Education must be defined as "the process of translating what is *known* about health into what people *feel* and *do* about health now and in the future. The commitment of health education is to action, which extends beyond knowledge to include attitudes and behavior."

The many crisis-type health problems, such as the increase in drug abuse (including alcoholism), venereal disease, mental illness, accidents, malnutrition, homicide and suicide, are symptoms of a deranged pattern of growth and development. This derangement often manifests itself in lack of insight and acceptance of self, lack of identity and poor human relationships. Relevant health education regarding growth and development would prevent many of these unfortunate conditions and should be available to children of all ages, parents and future parents. This means wide availability of relevant health education programs in every community—in day care centers, nursery schools, health care centers, schools, adult education classes, seminars in parenthood and child health rearing and other community agencies. It is vital that such availability has strong public and private support at the national, state and local levels.

We hope to present a conference of this type in Missouri in the fall by serving as the catalyst action group and to form a nucleus for effective action programs at the local level. Each of our county auxiliaries will be asked to do a community health survey and to evaluate health manpower distribution.

50th Anniversary Convention—AMA Woman's Auxiliary

We extend a warm invitation to you and your wife to attend the 50th Anniversary Convention of the Woman's Auxiliary to the AMA at the St. Francis Hotel in San Francisco on June 18-22. In addition to many other exciting social and educational events, the luncheon at 1 PM on Monday, June 19 will feature Art Linkletter as the guest speaker. We especially hope you will all join us at the special "Missouri Table" which will be reserved for Missouri Auxiliary members, their husbands and guests.

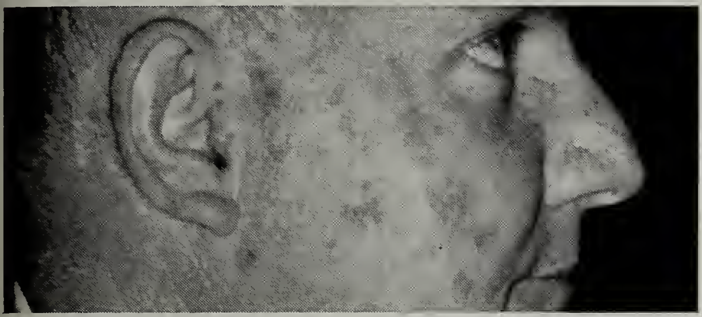
What's on your patient's face...

may be more important than
his chief complaint

The lesions on his face may be solar/actinic – so-called “senile” keratoses...and they may be premalignant.

Solar, actinic or senile keratoses

These lesions may be called by several names, but they usually can be identified by the following characteristics: the typical lesion is flat or slightly elevated, of a brownish or reddish color, papular, dry, rough, adherent, and sharply defined. They commonly occur as multiple lesions, chiefly on the exposed portions of the skin.



Patient P.T. seen on 3/29/67 shows typical lesions of moderately severe keratoses. Note residual scarring on ridge of nose from previous cryosurgical and electrosurgical procedures.*

Sequence of therapy/ selectivity of response

After several days of therapy with Efudex® (fluorouracil), erythema may begin to appear in the area of the lesions; the reaction usually reaches its height of unsightliness and discomfort within two weeks, declining after discontinuation of therapy. This reaction occurs in affected areas. Since the response is so predictable, lesions that do not respond should be biopsied.

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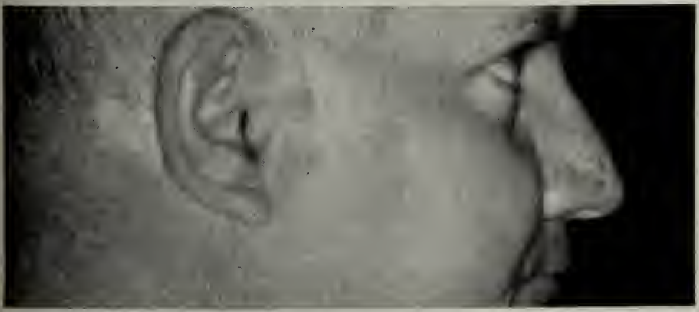

Patient P.T. seen on 6/12/67, seven weeks after discontinuation of 5%-FU cream. Reaction has subsided. Residual scarring not seen except for that due to prior surgery. Inflammation has cleared and face is clear of keratotic lesions.*

*Data on file, Hoffmann-La Roche Inc., Nutley, N.J.

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Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity to any of its components.

Warnings: If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

Adverse Reactions: Local – pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported – insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

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Cream, 25-Gm tubes – containing 5% fluorouracil in a vanishing cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).

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EDITORIALS

DR. WENDELL G. SCOTT

(Dr. Wendell G. Scott of St. Louis, world-renowned radiologist and cancer fighter, died on May 4, 1972 at Barnes Hospital. A Professor of Clinical Radiology at Washington University School of Medicine since 1951, his medical accomplishments and affiliations were nationwide. He served as President of St. Louis Medical Society in 1948 and as Chairman of the Committee on Radiology and Ionizing Radiation of the Missouri State Medical Association from 1960 to 1964. A strong supporter of the American Medical Association, he has served as a Delegate to the AMA House of Delegates from the Section of Radiology since 1966. MISSOURI MEDICINE *expresses appreciation to the* St. Louis Globe-Democrat *for the privilege of reprinting the following editorial in tribute to Doctor Scott who devoted much of his life to the effort of discovering the cause and cure of cancer.)*

St. Louis has lost one of its most illustrious citizens with the death of Dr. Wendell G. Scott, world-renowned radiologist and pioneer in cancer research.

It is one of life's indecipherable ironies that Wendell Scott should die of the very disease he fought so valiantly against.

Dr. Scott worked tirelessly to acquaint the public with means of detecting and combating cancer. He and his colleagues were acknowledged to be among the world's foremost experts in their field.

Every possible honor and distinction that could be given to a man of his profession was bestowed upon Dr. Scott. And every award he received was earned. His credentials were genuine.

He was renowned for his work and research in roentgenology, radium therapy and nuclear medicine. In 1951, he received acclaim for perfecting a unique x-ray technique for examining the heart. Called the Rapidograph, its purpose was to detect conditions which cause "blue babies" and to help determine the advisability of corrective surgery.

Dr. Scott's amazing device, which has enabled doctors to "see" inside the heart and its blood vessels, led to a better understanding of different types of heart disease caused by rheumatic fever, high blood pressure, hardening of the arteries and artery changes. The American Medical Association conferred its silver medal for original investigation upon him in appreciation for the Rapidograph.

As evidence of his stature, Dr. Scott was past president of the American Cancer Society. He built the society's journal into a leading source of information on the clinical aspects of cancer research and development.

He attained the rank of Rear Admiral in the Naval Reserve after service in World War II.

Countless people owe their lives or restored health to Dr. Wendell G. Scott.

Perhaps the best measure of the man is that he never lost touch with his patients, even though his specialty required his presence in laboratories and lecture halls.

Despite his burdensome duties, he never let himself become too busy to neglect a patient. Although he easily could have been excused, he faithfully responded to house calls, even in the middle of the night.

Dr. Scott was that rare man of medicine who strove for an achieved perfection, while always remaining at heart a kind and gentle healer.

At age 66, he is gone too soon. His city, state, nation and the world as a whole have cause to mourn him.

St. Louis Globe-Democrat
May 5, 1972

IMPETUS FOR MSMF

It was with some satisfaction that I read a letter by Dr. Richard Dames, Assistant Dean, St. Louis University School of Medicine, St. Louis, Mo. (page 451) which was sent to the Missouri State Medical Foundation on Nov. 24, 1971. He pointed out that he had attended a meeting in Atlanta pertaining to the Health Manpower Training Act and its implementation in the fiscal year 1973. He indicated that, in spite of the additional funds they are able to obtain from either the Health Professions Scholarship or Health Professions Loan Program, he finds it unlikely that they will have sufficient funds to give any of their students the maximum $3,500 from either program.

The Missouri State Medical Association established the Missouri State Medical Foundation for deserving students several years ago and members of the Association have seen fit to implement this program by voting assessments in order to cover the amount of money that is necessary to make this Foundation successful.

It is, of course, with some pride that I see the progress that has been made and the fact that these services are truly needed and that we are being called upon by the universities to assist them in aiding their students. I, as a member of the Board of Trustees of the Missouri State Medical Foundation and as a physician in the state of Missouri, wish to personally thank Doctor Dames for his letter of appreciation.

I am certain that this will serve to add impetus to the continuing success of the Foundation.

KENNETH C. HOLLWEG, M.D., Kansas City

WHO NEEDS THE AMA?

(Following is an excerpt from a speech by Edward Siegel, M.D., President of the Medical Society of New York, to MSNY.)

The eternal cry is raised, who needs the AMA? What does it do for me? It's too liberal! It's too reactionary! It's too conservative!

Anyone who has followed the AMA knows that the voices of dissension and criticism are now being heard in that organization. As all organizations must change to survive, the AMA is changing. What direction it takes depends on those of you who are interested enough to have a part of the action.

There is not a single physician in this country today who has not benefited from the AMA when one considers the fantastic amount of work that they have done on a national scale in all facets of medicine and public health. A look at their journals, magazines, committees, councils and task forces will vouch for this.

I think it is morally unacceptable for us to share in the benefits of the AMA without supporting the AMA.

(The AMA has recently released a new pamphlet which is extremely informative and surprising. For a free copy of the pamphlet, "The American Medical Association and the American Doctor: Sharing a Common Goal," write to Dept. DW, American Medical Association, 535 North Dearborn Street, Chicago, Ill. 60610.—ED.)

COMMENT . . .

Our Readers Write

Mr. Tom Fox
Assistant Secretary
Missouri State Medical Foundation
515 East High Street
Jefferson City, Missouri 65101

Dear Tom:

I am enclosing a copy of a summary of a recent meeting I attended in Atlanta regarding the Health Manpower Training Act and how it will be implemented in fiscal year 1973. We will receive additional funds beyond what we received this year, and the maximum amount which we can give to our students under either the Health Professions Scholarship or Health Professions Loan program has been increased. It is extremely unlikely that we will have enough funds to give any of our students the maximum of $3,500 from either program.

With the number of students from Missouri increasing in our freshman class we will continue to make rather heavy demands upon your foundation for financial assistance. I foresee no marked decrease in this need over the next few years. I am sure that our tuition, as high as it is, will not remain static over the next few years but, like everything else, will continue a slow upward spiral.

In view of this, I would recommend that the Missouri State Medical Foundation continue its very valuable and much appreciated assistance to medical students who are residents of the state of Missouri.

Sincerely yours,
Richard J. Dames, M.D.
Assistant Dean
St. Louis University
School of Medicine

Dr. Lysle M. Bach of Hannibal *(left)*, Councilor, greets MSMA President Gerald L. Miller, a featured speaker at the Second District meeting. This was Doctor Miller's last official visit.

Dr. James K. Mann of Hannibal *(right)*, President of Marion-Ralls-Shelby County Medical Society, welcomes Dr. Paul R. Young, Medical Director of Continuing Medical Education at the MU Medical Center.

Drs. Miller, Mayer Are Featured Speakers at Second District Meeting in Hannibal

Approximately 80 physicians and their wives attended the Second Councilor District meeting of the Missouri State Medical Association on March 14 at the Holiday Inn in Hannibal.

Dr. Lysle M. Bach of Hannibal, Second District Councilor, served as host to the group and presided at the dinner program.

The event marked the last official visit this year of MSMA President Gerald L. Miller of Kansas City, who was a featured speaker on the program. He discussed "Problems Concerning Organized Medicine."

Dr. William D. Mayer, Dean of the University of Missouri School of Medicine and Director of the University Medical Center also was a guest speaker. His subject was "New Developments and Capabilities of the University of Missouri Medical Center."

Dr. Marion S. DeWeese, Chief of Surgery, and Dr. Charles E. Mengel, Chief of Medicine at the Medical Center, accompanied Doctor Mayer and also appeared on the program.

Other special guests included Mr. Raymond McIntyre, Executive Secretary of the MSMA, and Mrs. McIntrvre and Assistant Executive Secretary Royal O. Cooper, who also is MSMA Field Secretary.

(Left to right) Drs. Phillip B. Foreman and Walter N. Latimer, Hannibal; President Gerald L. Miller; and Dean William D. Mayer of the MU School of Medicine, also a guest speaker.

Dr. Marion S. DeWeese *(left)*, Chief of Surgery at the University of Missouri Medical Center and Dr. Wyeth Hamlin of Hannibal. Doctor DeWeese appeared on the meeting program.

County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

Buchanan County Medical Society

David D. Paulus, M.D., Mammography Project Director of the M. D. Anderson Hospital and Tumor Institute of the University of Texas at Houston, presented the annual cancer program of the Buchanan County Medical Society at the Moila Club in St. Joseph on April 5.

Doctor Paulus discussed "Modern Detection of Cancer of the Breast," and his talk was illustrated with slides showing mammography, xerography and thermography. Physicians in attendance were impressed with the clarity and detail of the xerography pictures.

Doctor Paulus was met in Kansas City by Dr. Joseph L. Fisher who is a past-president of the Missouri Cancer Society, founder of the Buchanan County unit of the Missouri Cancer Society and a Past-President of Buchanan County Medical Society. He was accompanied by Mr. Richard Knox, executive director of the Buchanan County unit of the Cancer Society.

Thirty-nine physicians from St. Joseph and the area attended the session. Dr. Edward M. Stevens introduced the speaker. Dr. Lawrence H. Pifer presided at the meeting.

Program arrangements were made by Dr. Martin J. Fischer, Chairman of the Program Committee and Drs. Gerald E. Fox and Edward M. Beheler, members of the committee.

William B. O'Connor, M.D., *Secretary*

SECOND DISTRICT

COUNCILOR
LYSLE M. BACH, M.D., HANNIBAL

Chariton-Macon-Monroe-Randolph County Medical Society

The regular meeting of the Chariton-Macon-Monroe-Randolph County Medical Society was held on April 13 at Woodland Hospital Medical Library in Moberly. President F. L. Harms presided.

The program, arranged by Dr. P. V. Dreyer of Huntsville, was presented by J. E. Bumgarner, M.D. and Robert J. King, M.D., who with Dr. James C. Cope, are in the private practice of urology in Columbia.

Doctor Bumgarner discussed "Vasectomy" which he said has little effect upon population control but which does make many marriages happier.

Doctor King's subject was "Common Urological Problems." He gave many pointers and helpful hints on catheterization, ureteral and kidney stones and control of urinary bleeding.

Discussion was active during the question-and-answer period.

Society members who were present were Drs. D. E. Eggleston and J. E. Campbell, Macon County; F. L. Harms and D. D. Stuart, Chariton County; F. A. Barnett, Monroe County; and J. Baker, J. W. Fleming, Jr., T. S. Fleming, Robert H. Young, W. D. Chute, C. C. Cohrs, L. E. Huber, P. V. Dreyer, R. V. Tompson and G. R. Hudson, Randolph County.

W. D. Chute, M.D., *Secretary*

Continuing Education Coming Events

June 2-3	**Fourth Annual Professional Meeting—Missouri Chapter American College of Surgeons** Bel Air Motel, 4th & Washington, St. Louis
June 5-7	**Second International Symposium on Intestinal Microflora** Continuing Education, M.U. School of Medicine Medical Center Auditorium, Columbia 65201
June 14-15	**Headache Seminar** Continuing Education, M.U. School of Medicine Columbia 65201

Pinworm therapy is often a family affair

Contraindications: History of hypersensitivity to thiabendazole. **Warnings:** If hypersensitivity reactions occur, drug should be discontinued immediately and not resumed. Rarely, erythema multiforme has been associated with thiabendazole therapy; in severe cases (Stevens-Johnson syndrome), fatalities have occurred. Because CNS side effects may occur quite frequently, activities requiring mental alertness should be avoided. Safe use in pregnancy or lactation has not been established. **Precautions:** Ideally, supportive therapy is indicated for anemic, dehydrated, or malnourished patients prior to initiation of anthelmintic therapy. In presence of hepatic or renal dysfunction, patients should be carefully monitored. **Adverse Reactions:** Most frequently encountered are anorexia, nausea, vomiting, and dizziness. Less frequently, diarrhea, epigastric distress, pruritus, weariness, drowsiness, giddiness, and headache have occurred. Rarely, tinnitus, hyperirritability, numbness, abnormal sensation in eyes, blurring of vision, xanthopsia; hypotension, collapse; enuresis; transient rise in cephalin flocculation and SGOT; perianal rash, cholestasis and parenchymal liver damage; hyperglycemia; transient leukopenia; malodor of the urine, crystalluria, hematuria; appearance of live Ascaris in the mouth and nose. Hypersensitivity reactions

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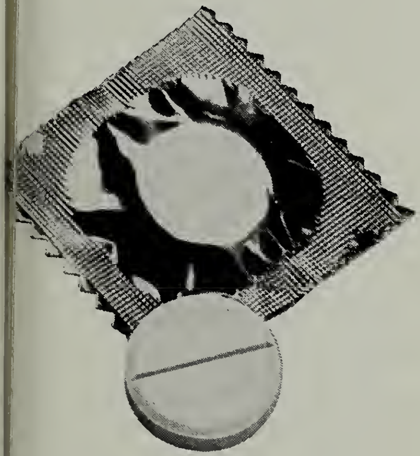

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nclude: fever, facial flush, chills, conjunctival injection, ngioedema, anaphylaxis, skin rashes, erythema multiforme including Stevens-Johnson syndrome), and lymphadenopathy. **Supplied:** Chewable tablets, containing 500 mg thiabendazole, in boxes of 36, strip packaged, individually foil wrapped; Suspension, containing 500 mg thiabendazole per 5 cc, in bottles of 120 cc.

For more detailed information, consult your MSD representative or see the Direction Circular. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

addendum

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INDICATION | DOSAGE SCHEDULE

MINTEZOL® (Thiabendazole, MSD) has demonstrated effectiveness against a broad spectrum of nematode infestations, whether encountered singly or in combination. Dosages are weight related; therefore, a weight-dose chart is included in the Direction Circular for your convenience when writing a prescription. MINTEZOL should be given after meals if possible.

INDICATIONS	DOSAGE (1st Day)	ADDITIONAL REGIMEN	COMMENTS
Pinworm disease	Two doses of 1 tablet/50 lb	Repeat 7 days later	This regimen is designed to reduce the risk of reinfection. However, if not practical, repeat the regimen the next day.
Threadworm,* large roundworm,* hookworm,* and whipworm* disease	Two doses of 1 tablet/50 lb	Repeat the next day	Alternatively, a single dose of 2 tablets/50 lb may be given. However, a higher incidence of side effects should be expected.
Creeping eruption	Two doses of 1 tablet/50 lb	Repeat the next day	If active lesions are still present 2 days after completing this regimen, a second course is recommended.
Symptoms of trichinosis* during the invasive phase of the disease	Two doses of 1 tablet/50 lb	Repeat for 2 to 4 successive days	The optimal dosage for the treatment of trichinosis has not been established.

The recommended maximal daily dosage is 3 g (6 tablets).

*Clinical experience with thiabendazole for treatment of each of these conditions in children weighing less than 30 lb has been limited.

New Members

Irving K. Arenberg, M.D., 517 S. Euclid, St. Louis, has become a member of St. Louis Medical Society. Dr. Arenberg is a native of East Chicago, Ind., received his preliminary education at the University of Michigan and his M.D. degree at the University of Michigan in 1967. He specializes in otolaryngology.

Rita Bremer, M.D., 2601 Whittier, St. Louis, has become a member of St. Louis Medical Society. Dr. Bremer is a native of West Germany. She received her M.D. degree at the University Wuerzburg in 1953. She specializes in internal medicine.

Mary E. S. Case, M.D., 1302 S. Grand, St. Louis, has become a member of St. Louis Medical Society. Dr. Case is a native of Jefferson City, received her preliminary education at the University of Missouri and her M.D. degree at St. Louis University in 1969. She specializes in pathology.

Ralph D. Feigin, M.D., 500 S. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Feigin is a native of New York, N. Y., received his preliminary education at Columbia College and his M.D. degree at Boston University in 1962. He specializes in pediatrics.

David M. Keefe, M.D., 2850 W. Clay, St. Charles, has become a member of St. Charles-Lincoln County Medical Society. Dr. Keefe is a native of Chicago, Ill., received his preliminary education at John Carroll University and his M.D. degree at St. Louis University in 1956. He specializes in pediatrics.

Hugh E. Mosbacher, M.D., 17221 East 23rd, Independence, has become a member of Jackson County Medical Society. Dr. Mosbacher is a native of Meadville, Pa., received his preliminary education at Allegheny College and his M.D. degree at the University of Pittsburgh in 1956. He specializes in plastic surgery.

Salvador V. Sanchez, M.D., 3400 Frederick, St. Joseph, has become a member of Buchanan

(Continued on page 460)

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IMPROVED ACCIDENT & HEALTH PROGRAMS

The Disability Income Policy sponsored by the Missouri State Medical Association since 1943 has now been made GUARANTEED RENEWABLE and income benefits are available up to $300.00 weekly to members under age 56 subject to acceptance by the Company.

Also, the Major Hospital and Nurse Expense Program offers higher limits with increased Room & Board Benefits.

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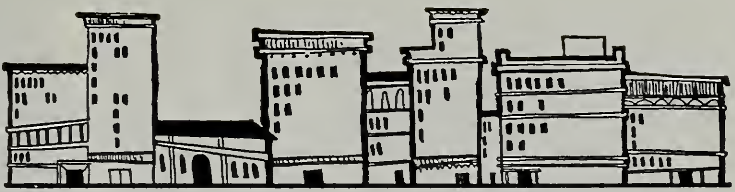
From the Medical Schools



UNIVERSITY OF MISSOURI-COLUMBIA

Dr. Randall D. Wood, a biochemist who also holds an appointment in the Department of Medicine at the Medical Center, was chairman of an international symposium on cancer research held in Los Angeles in April.

Prominent investigators from all over the world who are studying lipids of neoplastic cells, using various model systems, gathered to exchange concepts and ideas that will speed the rate of progress toward understanding the involvement of lipids in cancerous tissue.

The possibility of lipids being involved in the neoplastic process has generated much interest and investigators throughout the world have initiated studies to answer this question.

The second textbook written by *Dr. C. Roland Leeson,* University of Missouri-Columbia chairman of anatomy, in collaboration with his twin brother, was published in May by W. B. Saunders Company, Philadelphia.

"Human Structure" is a companion book on anatomical studies to their earlier textbook, "Histology," first published in 1966 and reprinted in 1970. The brothers also have completed a laboratory manual on practical histology which will include accompanying film strips. The publishing date is scheduled for next December.

Doctor Leeson has published more than 60 scientific papers in addition to his books. In cooperation with the Educational Resources Group of the UMC School of Medicine he has produced nine audio-visual programs in anatomy for use by students in this medical school and at other schools upon request.

Dr. Thomas Leeson, twin of the Missouri anatomist, is chairman of the Department of Anatomy at the University of Alberta, Canada.

Dr. Hugh E. Stephenson, Jr., professor of surgery and president of the Missouri State Surgical Society, spoke on surgical emergencies at the third annual Arthur E. Hertzler Memorial Lecture in Halstead, Kan. on April 29.

The program honors the late Doctor Hertzler, famous "horse and buggy doctor" and pathologist, who founded the Hertzler Clinic.

WASHINGTON UNIVERSITY

Donald W. Goodwin, M.D., assistant professor of psychiatry, received the Hofheimer Prize for Research from the American Psychiatric Association on May 2. It honors researchers for outstanding accomplishments in psychiatry and mental hygiene.

Dr. Goodwin

Doctor Goodwin and his co-researchers, *George Winokur,* M.D. and *Mark A. Schuckit,* M.D., will be honored with the prize at the Association's annual convocation of fellows in Dallas, Tex. Doctors Winokur and Schuckit are formerly of the Washington University psychiatry faculty.

The research paper reports investigations which demonstrated that the genetic factor seemed stronger than the environmental factor in the incidence of alcoholism, even in the instance of a half-brother or half-sister raised from early infancy by the non-alcoholic parent.

Washington University School of Medicine has announced that 41 of its graduating class of 94 began practice in St. Louis hospitals upon receiving the M.D. degree on May 26.

The National Internship Matching Program released the appointments on April 14. The remainder of the class will be interning in 40 hospitals in 24 states.

Missouri appointees at Barnes Hospital are *Michael D. Bieri,* California, and *Marc R. Hammerman,* St. Louis.

Missourians interning at St. Louis Children's Hospital are *Walter F. Benoist,* St. Louis, and *Michael B. Sheehan,* Kansas City.

Jewish Hospital of St. Louis interns are *Fred D. Biggs,* Poplar Bluff; *Joan E. Mollman,* St. Louis and *Albert L. VanAmburg, III,* St. Louis.

The Pharmaceutical Manufacturers Association Foundation has announced that *Thomas C. Namey* of the School of Medicine is one of 21 students to receive $1,000 traineeship grants in clinical pharmacology.

The grant is part of the Foundation's program supporting fundamental research in drug toxicology and promotion of better public health through scientific and medical research.

Mr. Namey will continue research on the effect of furosemide on potentiating digitalis-induced myocardial potassium outflow, a project he began in 1970. He presented papers on his research at the American Medical Association and at the Federation of Clinical Research meetings in 1971.

He also will receive $600 for the project from the Public Health Service, National Institutes of Health, Bethesda, Md. In addition, the Cleveland (Ohio) Clinic Educational Foundation has granted him a three-month fellowship beginning in October. He will do research in gastroenterology and hypertension nephrology.

ST. LOUIS UNIVERSITY

Construction and renovation of the $18,000,000 expansion and improvement program has begun at the St. Louis University Medical Center. Groundbreaking ceremonies were held on April 13 in the rear of the University's Firmin Desloge Hospital, following demolition of Christopher Hall. The expansion will include construction of a six-story hospital addition to Firmin Desloge Hospital to be known as the Bordley Memorial Pavilion and modernization of the hospital itself; renovation of the School of Medicine at 1402 S. Grand Blvd.; and an integrated connection between the School of Medicine and the Caroline

Dr. G. O. Broun, Sr., professor of internal medicine and dean emeritus of the St. Louis University School of Medicine, participated in the groundbreaking ceremonies marking the $18,000,000 expansion at the St. Louis University Medicine Center. *(Left to right)* Rev. Edward J. Drummond, S.J., vice president, Medical Center; Rev. Paul C. Reinert, S.J., University president; Daniel F. Schlafly, chairman, Board of Trustees; Dr. George E. Thoma, assistant vice-president, Medical Center; and Dr. Edward A. Doisy, Sr., Nobel Laureate.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute, recurrent or chronic urinary tract infections (primarily cystitis, pyelitis, pyelonephritis) due to susceptible organisms (usually *E. coli, Klebsiella-Aerobacter, Staphylococcus aureus, Proteus mirabilis,* and less frequently, *Proteus vulgaris*) in the absence of obstructive uropathy or foreign bodies.
IMPORTANT NOTE: *In vitro* sulfonamide sensitivity tests are not always reliable. The test must be carefully coordinated with bacteriologic and clinical response. When the patient is already taking sulfonamides, follow-up cultures should have aminobenzoic acid added to the culture media.

Currently, the increasing frequency of resistant organisms is a limitation of the usefulness of antibacterial agents including the sulfonamides, especially in the treatment of chronic and recurrent urinary tract infections.
Free sulfonamide blood levels should be measured in patients receiving sulfonamides for serious infections since there may be wide variations with identical doses; 20 mg/100 ml should be maximum total sulfonamide level, as adverse reactions occur more frequently above this level.
Contraindications: Hypersensitivity to sulfonamides, infants less than 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis), pregnancy at term, and during the nursing period.
Warnings: Safety of sulfonamides in *pregnancy* has not been established. Sulfonamides will not eradicate group A streptococci. Deaths associated with sulfonamide administration have been reported from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias. Clinical signs such as sore throat, fever, pallor, purpura or jaundice may be early indications of serious blood disorders. Complete blood counts and urinalyses with careful microscopic examination should be performed frequently during sulfonamide therapy.
Precautions: Use with caution when impaired renal or hepatic function, severe allergy or bronchial asthma is present. In glucose-6-phosphate dehydrogenase-deficient individuals, hemolysis (frequently a dose-related reaction) may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.
Adverse Reactions: *Blood dyscrasias:* Agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia, methemoglobinemia. *Allergic reactions:* Erythema multiforme (Stevens-Johnson syndrome), generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia, allergic myocarditis. *Gastrointestinal reactions:* Nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis, stomatitis. *C.N.S. reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria. Periarteritis nodosa and L.E. phenomenon have occurred with sulfonamide therapy. Sulfonamides bear certain chemical similarities to some goitrogens, diuretics and oral hypoglycemic agents. Goiter production, diuresis and hypoglycemia have occurred rarely in patients receiving sulfonamides. Cross-sensitivity may exist with these agents.

Supplied: Tablets containing 0.5 Gm sulfisoxazole.

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*Koch-Weser, J., *et al.*: *Arch. Intern. Med.*, *128* 399, 1971.

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Usual adult dosage:
4 to 8 tablets *stat*
2 to 4 tablets *q.i.d.*

Medical Schools

(Continued)

Building at 3556 Caroline Street, which houses the Department of Orthodontics and Medical Center Administrative offices.

The multi-million dollar expansion project was aided by a special trust bequest by the family of *Dan and Blanche Bordley,* whose estate was probated in the 1930s.

The Medical Center's expansion program is supported by a federal grant of $9,800,000, with the stipulation that matching funds be sought from alumni, foundations and friends of the University.

The hospital addition will provide new emergency room facilities, operating rooms, a patient care area, radiology facilities and a physical medicine and rehabilitation complex.

A 13-story transportation tower will also be constructed at the hospital, providing five new elevators as well as conference and waiting rooms.

The renovation in the School of Medicine will provide or improve laboratories and supporting areas for several departments and additional seminar rooms, study and lounge spaces for students and improved audio-visual facilities. This renovation practically completes the modernization of the School of Medicine where approximately $6,000,000 will have been spent in new construction or modernization during the last decade. Among these improvements was the construction of a fifth-floor addition to the School and the renovation of numerous research and teaching laboratories.

The construction has been described as "the largest single construction project ever undertaken by the University."

New Members

(Continued from page 456)

County Medical Society. Dr. Sanchez is a native of Duartina-SP-Brazil, received his preliminary education at State College and his M.D. degree at Federal University in 1957. He specializes in general medicine and psychiatry.

James M. Thomson, Jr., M.D., Ellis Fischel State Cancer Hospital, Columbia, has become a member of Boone County Medical Society. Dr. Thomson is a native of Austin, Minn., received his preliminary education at the University of Minnesota and his M.D. degree at the University of Minnesota in 1961. He specializes in radiotherapy.

Pre-Sate ®
(chlorphentermine HCl)

CAUTION: Federal law prohibits dispensing without prescription.

Indications: Pre-Sate (chlorphentermine hydrochloride) is indicated in exogenous obesity, as a short term (*i.e.*, several weeks) adjunct in a regimen of weight reduction based upon caloric restriction.

Contraindications: Glaucoma, hyperthyroidism, pheochromocytoma, hypersensitivity to sympathomimetic amines, and agitated states. Pre-Sate (chlorphentermine hydrochloride) is also contraindicated in patients with a history of drug abuse or symptomatic cardiovascular disease of the following types: advanced arteriosclerosis, severe coronary artery disease, moderate to severe hypertension, or cardiac conduction abnormalities with danger of arrhythmias. The drug is also contraindicated during or within 14 days following administration of monamine oxidase inhibitors, since hypertensive crises may result.

Warnings: When weight loss is unsatisfactory the recommended dosage should not be increased in an attempt to obtain increased anorexigenic effect; discontinue the drug. Tolerance to the anorectic effect may develop. Drowsiness or stimulation may occur and may impair ability to engage in potentially hazardous activities such as operating machinery, driving a motor vehicle, or performing tasks requiring precision work or critical judgment. Therefore, such patients should be cautioned accordingly. Caution must be exercised if Pre-Sate (chlorphentermine hydrochloride) is used concomitantly with other central nervous system stimulants. There have been reports of pulmonary hypertension in patients who received related drugs.

Drug Dependence: Drugs of this type have a potential for abuse. Patients have been known to increase the intake of drugs of this type to many times the dosages recommended. In long-term controlled studies with high dosages of Pre-Sate, abrupt cessation did not result in symptoms of withdrawal.

Usage In Pregnancy: The safety of Pre-Sate (chlorphentermine hydrochloride) in human pregnancy has not yet been clearly established. The use of anorectic agents by women who are or who may become pregnant, and especially those in the first trimester of pregnancy, requires that the potential benefit be weighed against the possible hazard to mother and child. Use of the drug during lactation is not recommended. Mammalian reproductive and teratogenic studies with high multiples of the human dose have been negative.

Usage In Children: Not recommended for use in children under 12 years of age.

Precautions: In patients with diabetes mellitus there may be alteration of insulin requirements due to dietary restrictions and weight loss. Pre-Sate (chlorphentermine hydrochloride) should be used with caution when obesity complicates the management of patients with mild to moderate cardiovascular disease or diabetes mellitus, and only when dietary restriction alone has been unsuccessful in achieving desired weight reduction. In prescribing this drug for obese patients in whom it is undesirable to introduce CNS stimulation or pressor effect, the physician should be alert to the individual who may be overly sensitive to this drug. Psychologic disturbances have been reported in patients who concomitantly receive an anorexic agent and a restrictive dietary regimen.

Adverse Reactions: Central Nervous System: When CNS side effects occur, they are most often manifested as drowsiness or sedation or overstimulation and restlessness. Insomnia, dizziness, headache, euphoria, dysphoria, and tremor may also occur. Psychotic episodes, although rare, have been noted even at recommended doses. **Cardiovascular:** tachycardia, palpitation, elevation of blood pressure. **Gastrointestinal:** nausea and vomiting, diarrhea, unpleasant taste, constipation. **Endocrine:** changes in libido, impotence. **Autonomic:** dryness of mouth, sweating, mydriasis. **Allergic:** urticaria. **Genitourinary:** diuresis and, rarely, difficulty in initiating micturition. **Others:** Paresthesias, sural spasms.

Dosage and Administration: The recommended adult daily dose of Pre-Sate (chlorphentermine hydrochloride) is one tablet (equivalent to 65 mg chlorphentermine base) taken after the first meal of the day. Use in children under 12 not recommended.

Overdosage: Manifestations: Restlessness, confusion, assaultiveness, hallucinations, panic states, and hyperpyrexia may be manifestations of acute intoxication with anorectic agents. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension, or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma.

Management: Management of acute intoxication with sympathomimetic amines is largely symptomatic and supportive and often includes sedation with a barbiturate. If hypertension is marked, the use of a nitrate or rapidly acting alpha-receptor blocking agent should be considered. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendations in this regard.

How Supplied: Each Pre-Sate (chlorphentermine hydrochloride) tablet contains the equivalent of 65 mg chlorphentermine base; bottles of 100 and 1000 tablets.

Full information available on request.

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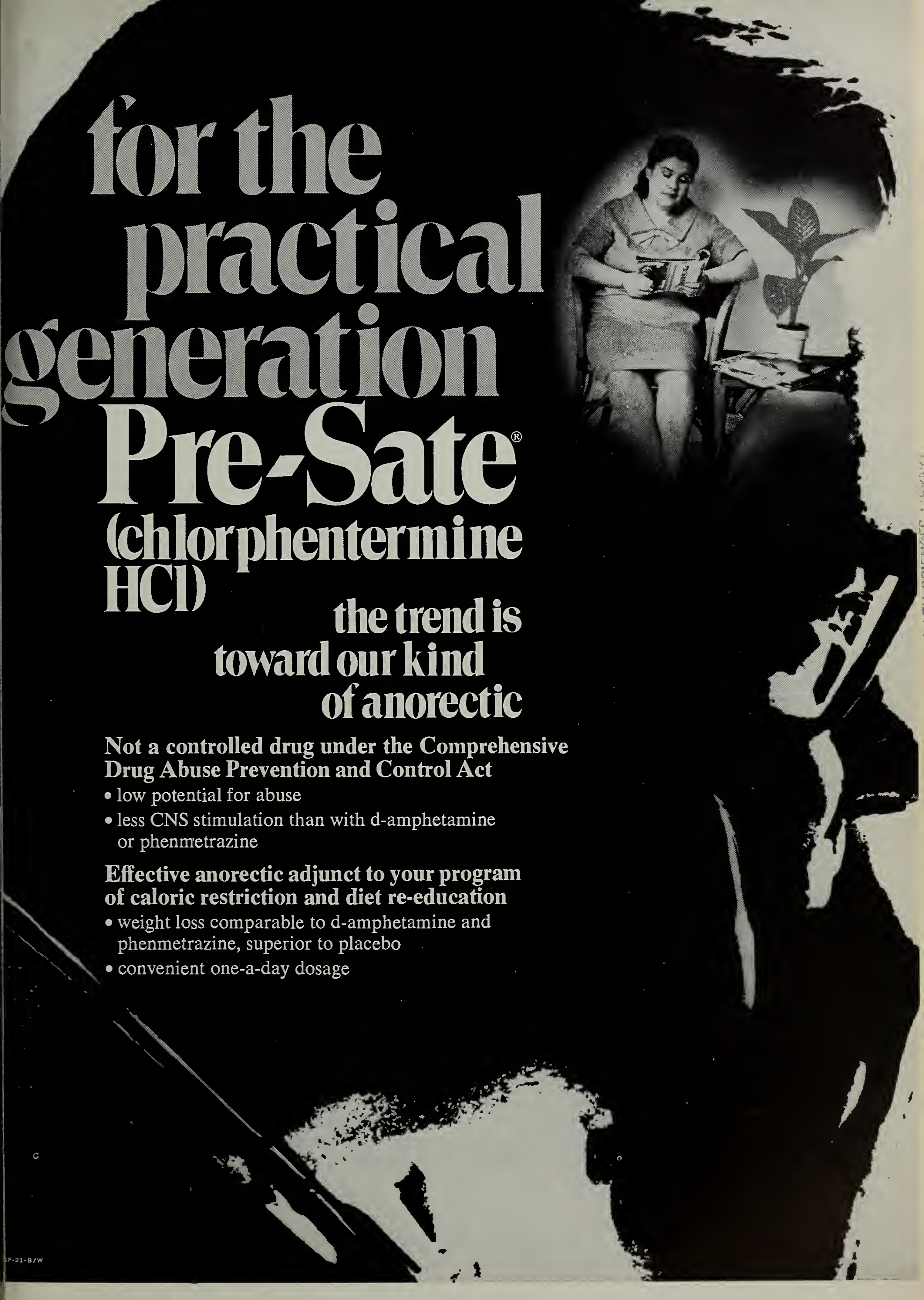

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the trend is toward our kind of anorectic

Not a controlled drug under the Comprehensive Drug Abuse Prevention and Control Act
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Effective anorectic adjunct to your program of caloric restriction and diet re-education
- weight loss comparable to d-amphetamine and phenmetrazine, superior to placebo
- convenient one-a-day dosage

P-21-B/W

Pre-Sate® (chlorphentermine HCl)...the increasingly practical appetite suppressant

LEO H. POLLOCK, M.D.

Missouri Medicine in Review

FORTY YEARS AGO

From Barnard Free Skin and Cancer Hospital, St. Louis: This hospital enjoys the unique distinction of being the only institution west of the Mississippi River devoted to the diagnosis and treatment of cancer and allied diseases. It has been in operation for more than 25 years and has a capacity of 40 beds. However, two hospitals reported the expenditure of funds for cancer research during the past year. Barnard Hospital spent the sum of $12,000 for this purpose and the Jewish Hospital spent $100.

An insurance company estimates that it costs the average family $7,200 to care for the average child from birth to 18 years of age.

Dr. Alfred N. Lemoine, Kansas City, was elected president of the Kansas City Society of Ophthalmology and Otolaryngology on April 21. Other officers are Drs. Paul Lux, Kansas City, first vice-president; W. C. Proud, St. Joseph, second vice-president; Harold B. Hedrick, Kansas City, secretary; and W. Byron Black, Kansas City, treasurer.

Dr. Duff S. Allen, St. Louis, was reelected secretary of the American Association for Thoracic Surgery at the annual session of the society in Ann Arbor, Mich. on April 18-20. Dr. Evarts A. Graham, St. Louis, was appointed editor of the *Journal of Thoracic Surgery*, the official organ of the society.

TWENTY-FIVE YEARS AGO

Dr. Robert Mueller was elected to the position of President-Elect of the Missouri State Medical Association on April 2, 1947 during the 89th Annual Session in Kansas City.

Vilray P. Blair, M.D., St. Louis, was presented a certificate of merit and a gold medal for scientific accomplishment at a meeting of the St. Louis Medical Society on May 20.

John G. Lapp, M.D., Kansas City, was guest of honor at a dinner given by his son, Harry C. Lapp, M.D. at the Muehlebach Hotel on April 15. The occasion was the 50th anniversary of the receipt of medical degrees by Doctor Lapp, Sr. and 13 others who came from several states for the reunion.

R. Emmet Kelly, M.D., St. Louis, was among the first arrivals at the Texas City disaster. He is medical director for the Monsanto Chemical Company whose plant at Texas City was demolished in the explosion of the Grandcamp.

The Mercer County Medical Society met on May 13 in the office of Dr. C. J. Laws, Princeton. Officers elected were Drs. A. S. Bristow, President; Marion Lambert, Vice-President; and J. M. Perry, Secretary-Treasurer. The Marion Lambert Hospital was discussed. Doctor Lambert stated that the hospital would contain modern hospital equipment with trained personnel and would be open to all M.D.s in the county and surrounding territory.

TEN YEARS AGO

"Medicine in the Atomic Age" is the theme of the AMA's Annual Convention which will be held at McCormick Place in Chicago on June 24-28. McCormick Place is the newly-erected convention headquarters in the city of Chicago. With more than 500,000 medical patients a year in the United States now receiving radioactive tracers for diagnostic purposes and with another 100,000 getting isotope radiation therapy, radioisotopes can no longer be considered curiosities. The total quantity of radioistotopes sold to industrial and research organizations in the U. S. by the Atomic Energy Commission during the past 15 years has amounted to about 1,300,000 curies of radioactivity. This year alone, U. S. users are expected to buy more than 2,000,000 curies.

Congressman Durward G. Hall, M.D., of Springfield was a speaker at the Florida Medical Association meeting in Miami Beach on May 10-13.

Minutes of the House of Delegates
114th Annual Session
Missouri State Medical Association

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MSMA
MISSOURI STATE MEDICAL ASSOCIATION

NEWS ROUND-UP

July, 1972

Family planning clinics, manpower placement top Council agenda

The establishment of federally-funded Family Planning Clinics in the state, the problem of health manpower and the setting up of a "rapid press release" mechanism for the MSMA were some of the main topics at the June 3-4 Council meeting in Jefferson City.

The Council also acted on fees under Medicaid, portable X-ray unit usage and resolutions referred to the Council by the House of Delegates. Reports were presented by the Women's Auxiliary and Deans of three of the medical schools in the state.

Family Planning Clinics

An Ad Hoc Committee was appointed to investigate and make recommendations concerning Family Planning Clinic activities in the state. Gerald L. Miller, M.D., of Kansas City, was appointed chairman of the committee.

Health Manpower

The Council agreed that the Physician Placement Coordinating Committee, set up over a year ago by the Missouri Division of Health in cooperation with the MSMA and the MAOPS, should accumulate and make available its data. The Council could then use the information to take positive steps toward developing a criterion for priority systems of physician placement in Missouri.

Rapid Press Releases

The Council approved the appointment of a committee-of-one, MSMA President Walter T. Gunn, M.D., of St. Louis, to work with the MSMA staff in composing responses to various items that appear in the news media. Upon approval from the committee, the responses would be released to the media as soon as possible. Input into the project would be from the entire state.

Fees under Medicaid

The Ad Hoc Committee on Negotiation of Professional Fees was directed to prepare a report on the fees being paid under the Medicaid program.

Portable X-Ray Units

The matter of the usage of portable X-Ray units for the detection of tuberculosis was referred to the Commission on Public Affairs for study.

House Resolutions

No. 24 - Smallpox vaccination: The MSMA is to be represented on the Committee on Communicable Diseases being formed by the Missouri Division of Health. The matter was tabled until the committee is formed and functioning.

No. 33 - Pediatric Coordination Council of Missouri: The resolution was referred to the Commission on Public Affairs.

No. 35 - Pledge cards on restricting usage of amphetamines; and No. 39 - Mailing by-laws of HCFM to membership: It was reported that both the pledge card and the HCFM by-laws had been mailed to the MSMA membership as directed by the House.

No. 37 - Emergency services at Kansas City: The Council agreed that MSMA should cooperate in every way possible to assist in the Kansas City plan and, at the same time, continue efforts in emergency services on a state-wide basis.

No. 40 - Failure rate of State Board examinations: The resolution was referred to the Commission on Continuing Education and Health Manpower for study.

(continued on next page)

No. 41 - Health Care Foundation of Missouri: The Council forwarded a copy of the resolution to the HCFM. The resolution read, "The Health Care Foundation of Missouri, Inc., will not review any issue unless the parties requesting the review agree to be bound by the decision of the Health Care Foundation of Missouri, Inc., with the privilege of appeal."

Women's Auxiliary

Mrs. Keith D. Jones, of Warrensburg, president of the Women's Auxiliary, reported on the group's recent activities and said the Auxiliary will hold its fall conference Oct. 24-25 in Columbia in conjunction with the 5th Councilor District meeting. The Council appointed an ad hoc committee to assist the Auxiliary in planning a Health Education Day at the conference.

Physician's pledge cards

Over 1,600 members of the Missouri State Medical Association have returned signed pledge cards calling for the restriction of amphetamine usage.

At the 1972 annual meeting, the House of Delegates passed the resolution calling on MSMA members to restrict their uses of amphetamines and other stimulant drugs.

The House directed the Council to mail pledge cards to every member of the MSMA. The cards are to be returned to the state office and the results are to be given to the news media.

Deadline for the news release is August 15. Members are urged to mail their pledge card to the state office before that time.

If a member has misplaced the pledge card, the box below may be clipped, signed and mailed to the state office.

PHYSICIAN'S PLEDGE

I, the undersigned, member of the Missouri State Medical Association, do hereby resolve to restrict my use of amphetamines and other stimulant drugs to the treatment of specific well-recognized medical indications such as narcolepsy, hyperkinesia, mild depression, and starter doses for obesity.

Signed ....

Address ....

Governor signs measure limiting chiropractic ads

Eight bills supported by the MSMA and passed by the 76th General Assembly have been signed by Gov. Warren E. Hearnes. The measures and their effective dates are:

*SB 609 - Makes it illegal for chiropractors to advertise or attempt to attract patronage in any unethical manner. This includes advertisements by individual chiropractors or chiropractic clinics. Chiropractors can not attempt to attract patronage by offering free examinations, free X-rays or free consultation, or in any manner that disparages, discredits or attacks other healing arts or sciences. Effective: Sept. 10, 1972.

*HB 1006 - Includes a $100,000 appropriation to the Division of Health for a sickle cell disease program and an increased appropriation of $3,436,667 to the Division of Welfare for Medicaid benefits. Effective: Sept. 10, 1972.

*HB 1087 - Creates a 32-member Missouri Advisory Council on alcoholism and drug abuse to act as an advisory body to the drug and alcohol program of the Division of Mental Health. Effective: July 27, 1972.

*HB 1165 - Prohibits operation of an unlicensed boarding house for the aged after April 1, 1973. License to be obtained from the Division of Health. Act provides procedures for obtaining, denial, suspension or revocation of license. Effective: Jan. 1, 1973.

*HB 1255 - Adds rubella and rubeola to the list of diseases which children are required to have immunization before attending public, private, parochial or parish schools. Effective: July 27, 1972.

*HB 1497 - Lowers the prima facie evidence of intoxication limit from 15% to 10% or more by weight of alcohol in the blood, with percent by weight of alcohol in the blood to be based on grams (instead of milligrams) of alcohol per 100 milliliters of blood. Effective: Aug. 24, 1972.

Directory investigated

If you have received a letter asking you to pay a $10 fee to have your name listed in the U.S. Medical Directory, a promotion out of Miami, Fla., the AMA advises that this publication is not to be confused with the American Medical Directory, AMA's official listing of physicians.

According to the AMA, "A check with postal authorities revealed that the matter is under investigation by inspectors in Miami, to whom complaints have been referred. However, no action has been taken."

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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"In recent years, it has become increasingly evident that the state organization and its assembly must be a forum for all segments of medicine."

Gerald L. Miller, M.D.

Remarks of
Gerald L. Miller, M.D., President

Mr. Speaker, Officers, Members of the House of Delegates and Guests:

One year ago this month in addressing this body, I stressed among other issues the challenge of assimilating the young physician and the need of unity in organized medicine if we were to successfully cope with and repulse the numerous threats from without and within to our current pluralistic system—a system with the greatest capacity for quality care known to man, but with coincident and often acknowledged deficiency in distribution of said quality care.

After a sobering year of travel throughout the state attending numerous state, District, Council, Commission and Committee meetings, I am more confident than ever that these are the key issues. With the exception of a small minority of physicians studying and reading to be informed and striving to help resolve the confrontation, however, there exists an air of "all clear—things were never better." In some social climates, this attitude is reflected by the vernacular of "fat cats."

Gentlemen, the professional apathy generated by the seeming inevitableness of Socialized Medicine is a myth, a "Maginot line," a defensive for no defense. It makes no sense to talk about Socialized Medicine, National Health Insurance and Health Care Delivery changes as the end of the world. We have had Socialized Medicine and National Health Insurance since a physician signed the first Medicare form. Prior to that, elements of national health were evident through the Vendor Programs, Champus Programs, etc. Let us stop tormenting ourselves. We have Socialized Medicine. Though we do not now have a single molded structure of State Medicine, we will have unless we are willing to work tirelessly and aggressively for a pluralistic system of medical care involving the government with which we can live and which will be in the best interest of our patients.

The system which evolves from the multifaceted effort—governmental, sociologic and medical—must preserve a strong patient-physician relationship and it must be a system which works best for the ill. Furthermore, I have every reason to believe that that system must be pluralistic, not monolithic. HMOs (Health Maintenance Organizations) are still ill-defined, but they are prepayment, capitation, panel, health care delivery programs strongly supported by the current administration and receiving significant vocal support in Washington corridors from both sides of the aisle. Projected are HMO's available to 90% of the American public by 1980. Do they promise too much? Will they be fiscally sound? Will they preserve the patient-physician relationship? Will they accommodate and improve health care delivery to deprived areas? Will they do a good job in caring for the sick? I do not know and neither does the government at this time, but I am confident that HMO's are very socialistic and they will have significant governmental regulation. We must, through organized medicine, insist that they (HMO's) are adequately tested through "pilot studies" for all of the questions alluded to previously with appropriate reporting to consumers, providers and citizens. Frankly, we are for HMO's and other delivery systems if they work.

Well, what is the State Association trying to do? With many other commitments to the individual practicing physician, the county, state and AMA organizations are aggressively meeting and are demonstrating impact on the many problems which have been thrust upon us and which may dictate the method by which medical care will be delivered in the future. In addition, we are attempting to infuse into this society influence or a desire to be influential in legislative matters. This is extremely important now because we have become very much a part of the political system, not only as citizens but as physicians. In recent years and probably for years to come, every state and federal legislative agenda has been overladen with bills regulating health and health delivery.

With few or no exceptions, each physician here will in his or her lifetime pay more in taxes for regulation of your own lives than you will spend collectively on your abode, automobiles and educating your children. Consequently, you must know your legislator; help seat a man in Congress or in the state legislature with whom you can communicate. He will not always vote down the line with you, but he will know the position of medicine and why!

Are you a member of AMPAC? Every Delegate in this house should be and so should each of your constituents be as a result of your influence. The AMA legislative committee is doing a great job at important hearings appearing as witnesses for you and me and helping to mold an acceptable structure of health care delivery. MSMA staff, Dr. Jack Matthews and his State Legislative Committee, in cooperation with the osteopathic legislative committee, are doing an absolutely fabulous job on health issues in our state legislature. Those of you here and non-delegates who have served as witnesses at hearings deserve our plaudits. Now with annual sessions of the Missouri State Assembly and the many health issues before the Assembly, you can clearly perceive the task, the commitment, the accomplishment of these people. Most of you would even be amazed at the knowledge many of your legislators acquire on subjects totally foreign to them in order to vote objectively. May I paraphrase an old cliche once again—so much for so many by so few. We have expertise; we have dedication; we have commitment. Oh, if we could only brake the internal dissidence, prejudice and the erosive negativistic wasting illness.

Among other activities of your state organization this past year, we have become involved in Health Education in our school system. With the unprecedented rise in VD, increasing problem of drug abuse (which, incidentally, this house took action on at its last Assembly), alcoholism and an alarming increase in homicide and crime in general, we believe we should not only be concerned but involved organizationally. Accepting the etiologic involvement of home and church in the problem, we chose to pursue the educational tact as a route most favorable to attacking the entire problem with hopes that a statewide program might be established. This premise was based on an assumption, right or wrong, that all of the problems alluded to previously were simply symptoms of a single social illness. Further, we felt the key to solutions were preeminently educational.

After a meeting with the Director of Public Health, Dr. H. Domke; a representative from the State Commission of Education, Dr. Taylor; and staff, we found general accord on the magnitude of the problem, its definition and a willingness collectively to pursue it. Subsequently, this group, together with Dr. Egle, President of the State Osteopathic Association, met with Governor Warren E. Hearnes. The Governor shared our concern and offered personal support, especially in relation to the VD problem.

On March 14, 1972, your President participated in a seminar on "Comprehensive Health Education." The seminar developed by the Commission on Education of the State and attended by teachers, parents, students and administrative educators was enlightening and encouraging. Over the years, MSMA, through Dr. Guy Magness and the Academy of Pediatrics, etc., have had input and have urged our increasing role in this area. However, we have not collaborated enough. Health education in our state school system is inadequate. There are few adequate college health curricula to develop teachers in this area and, needless to say, few trained teachers for health instruction and a lack of a uniform elementary, secondary and intermediate health-oriented curricula. Medicine and allied professions have much to offer this badly needed effort. I am confident you will be called upon and I urge your total supportive response.

Through our Public Affairs Commission, MSMA collaborated this year with RMP (Regional Medical Programs) and other health institutions of the state in a one-day seminar on large and small hospital organizations in the 1970s. This provided an excellent forum for hospital administrators, trustees and physicians. This first effort drew more than 300 participants and, although minor format changes may be necessary, I see clearly the need for this type of forum and again urge its perpetuation.

The President's Advisory Council, with broad geographic and discipline distribution in membership, has not been conspicuous by virtue of overinvolvement. Your President chose members for this Council outside the state's organizational structure, including a student. Its purposes to improve communication mechanisms, identify problems and propose solutions to same have been realized, although by no means has this capacity been exploited to the fullest. Among problems indentified by this group is the need of change in bylaws and organizational structure to accommodate the election of state officers and representatives with more flexibility than we now have. They urged that it be possible to elect people who demonstrate expertise and leadership throughout the state, but who are not necessarily in the political chain.

This challenge is in the hand of the Long Range Planning Committee and deserves full study, research and a report with recommendations to Council or Delegates. This committee has been helpful to me, and I would encourage its continuation. Furthermore, I would urge the Delegates to amplify this effort by establishing a MSMA "open hearing" at least twice yearly on Plans, Policies and Programs. I would suggest a circularized agenda. However, any member could submit an issue or problem for the agenda with, of course, an acceptable deadline for terminating such new issues.

In due time, each member of MSMA will be circularized regarding organized travel and learning safaris. Travel programs will be chosen, perhaps a Mediterranean Cruise, Scandinavian Tour, etc., with predeveloped academic programs to be a part of each tour. The Council and staff are assured that these will be worth the money and a delightful way to travel and learn. Look for the announcements.

My thoughts directed to you thus far have largely been relative to change. Change is inevitable and I invite it—not just for the sake of change, but because each of us has some large or small input into the molding of that change. That is the name of the game. Perhaps, the most potentially important development I foresee in effecting favorably some of the conditions under which health care is to be delivered is the Health Care Foundation. HCFM (Health Care Foundation of Missouri) has had its stormy moments since two years ago when this assembly resolved that the Council would establish a statewide peer review mechanism. The Council, with good fortune or remarkable foresight after significant research, chose to accomplish this commitment through the Health Care Foundation.

Selective, isolated peer review is not the answer and will not fulfill our obligation to the sick; the HCFM state program will. This program will succeed and deserves physician-support because it is controlled by physicians. Furthermore, it supports the concept of free choice of physician and hospital. It is not vindictive but, rather, is directed ultimately to the support of and for quality care. The capacity for education is unlimited and, in due time, should be able to define the norms for a package of care needed for a given span of illness. The program is slow in developing because appropriate guidelines of care are difficult to develop and there has been physician hesitancy in developing these guidelines.

To date, it has been difficult to "flag" or identify abnormal patterns of care because only the intermediaries are scanning large numbers of services. Intermediaries have coded for doctor, disease, utilization and cost and, like a bank, are provider-oriented. Consequently, cases coming to the Foundation for review are cost-control-oriented, and, currently, quality of care is only a by-product. This is in the process of change, but it will be slow. HCFM accommodates the PSRO (Professional Service Review Organization) legislation proposed by Senator Bennett of Utah. Very shortly, a consumer advisory board to the professional board of the HCFM will be appointed. This is essential because the profession is and must be consumer-oriented. It is good that the consumer be aware of what medicine does for him. Our setting is political as well as medical, and we are easily identified and conspicuous. Why shouldn't the consumer observe our activities in his behalf? What he reads about medicine is surely by innuendo, good or bad, depending largely on local journalistic favor or disfavor. Note the more recent front page editorialization appearing in Missouri papers reflecting upon a $500 million overcharge by physicians which appeared in other states supporting the physician as having, through its Peer Review mechanism, saved the public $500 million.

The year span 1971-1972 brings with it the inaugural class of the University of Missouri Medical School at Kansas City. Currently disbursed through the first five years of this innovative six-year program are 94 students. The quality of student is high, and the sociologic and geographic source of selection is broad spectrum. World educational eyes are focused on this project, and I predict a major school and medical center will evolve from this nidus. My congratulations to Missouri medicine for your important role in this conceptus. In the meantime, your Association has continued its other developmental role in other areas of continuing education for its association members.

In recent years, it has become increasingly evident that the state organization and its assembly must be a forum for all segments of medicine. In your Delegates Handbook are resolutions supporting the seating with vote for student representation in the House of Delegates, as well as a resolution supporting the seating with vote in the assembly for a representative from each of the specialty disciplines. Your President has further urged by communications to Presidents of given county societies the involvement of house officers through Junior Membership in the affairs of county societies and, hopefully, their ultimate seating with vote in the assembly.

Finally, the activities of the association are many and varied. The staff is doing a fine job and your dedicated Councilors deserve your commendation, I do not have enough praise for the many members serving on commissions and committees of this state organization who demonstrated commitment, wisdom and willingness to serve in this past year. Gentlemen, thank you.

With the expanding responsibilities of your association and increasing health legislative activities, together with annual legislative sessions in the state of Missouri, it has become timely to consider the issue of permanent real estate at Jefferson City for our offices. Availability of acceptable real estate in Jefferson City is limited. The Council will make recommendations to you concerning this issue later during your deliberations. I urge your careful, objective consideration of this important problem and I personally hope for your favorable support.

With your help, a favorable mold of health care delivery will ensue. Governmental . . . yes, because they will be increasingly involved in funding. Socialistic . . . yes, because of the former, but the framework will be dominated by medicine. Patient-physician relationship preserved and quality of care for the sick preserved . . . yes, only because organized medicine will not abandon its commitment to the ill.

Gentlemen, as you go about your *whereas's* and *resolves* in the days that follow, I pray for your guidance, your objectivity and your continuing cognizance of your personal role in the continuing evolution of this medical structure. Thank you.

"Get Involved!"

Remarks of Walter T. Gunn, M.D., President-Elect

Walter T. Gunn, M.D.

Mr. President, Officers, Delegates of the Missouri State Medical Association and Friends:

The problems besetting your Medical Association this year are as numerous and pressing as at any time in the past. To the best of my capabilities, I will attempt to delineate factually just what they are. One of the greatest problems in medicine today is lack of communication. Let us not place ourselves in the position of the English playwright who was casting characters for his play and became alarmed concerning the charisma of his leading man. He cabled an associate in Hollywood, asked him what he thought and said, "How old—Cary Grant?" By collect cablegram the next morning, he received his reply—"Old Cary Grant fine—how you?"

The reports emanating from the New Orleans Clinical Meeting of the AMA were not entirely factual. The House of Delegates did not repudiate President Wesley W. Hall's suggestions for a review of AMA policies and programs. They did reject the method he proposed. By vote, they created a special section for medical students, another for interns and residents and ordered open hearings at the two 1972 conventions to explore questions relating to AMA organizational structure and programs. It has been intimated in some quarters that there is disagreement on the Board of Trustees. You and I know that there has practically never been a meeting of 12 to 15 doctors at which there is complete unanimity of opinion. Certainly, this is true of your State Council. But this is a healthy sign. It is the democratic process to present two sides of a question, debate the merits of each and then after a vote, have the majority prevail. Certainly, we would not desire a rubber stamp Board of Trustees. Regarding the matter of morale in the AMA Central Office, I am sorry that our former liaison man, Mr. Tim Norbeck, could not be with us today to explain this situation to you in full.

Peer review has been approved by both the House of Delegates of the AMA and the AAFP. It also is a constituent part of each of the approximately ten health bills under consideration by the Congress. In addition to this, Senator Bennett has warned that if any health bill is submitted without peer review, he will contest it until a peer review amendment is added. The Missouri Health Care Foundation is probably one of the most controversial issues to come before this association in years. However, in view of the above facts, I believe this House of Delegates acted with judgment and foresight in planning such an organization. I hasten to add that together with the AMA House of Delegates, I believe peer review should be limited to one's peers. If after the scholarly and documented editorial last month in *St. Louis Medicine* by Dr. Eugene Pennington there is still doubt in someone's mind as to the how, when and where of this organization, I would refer you to the peer review session in Trianon A & B at 9 AM tomorrow to be moderated by Dr. Hector Benoit, the President of that organization. Furthermore, Booth 52 in the Convention Hall will be manned during program hours by personnel from MHCF to answer your questions. I would admonish our well-meaning friends to cease their efforts to destroy this organization and rechannel their efforts toward reforming and restructuring this foundation to be the best possible of its kind. Let us not throw out the baby with the bath water.

Health Maintenance Organizations are being touted by everyone outside of Medicine as the panacea for better and cheaper Health Care Delivery. Together with many others, I view these institutions with a jaundiced eye. Far more experiment and experience than now exists is necessary to justify the vast subsidization that these will require. At this juncture, I would like to echo Governor Hearnes' statement that he wishes the terms rural and urban had never been invented. Particularly in this association, they have been the source of a provincialism that has frequently hindered the best efforts of the organization. I understand that some physicians in the state would like to initiate a pilot study of these programs. I would recommend that this be done and from their experience, good or bad, additional recommendations be made.

Compulsory postgraduate medical education is the most recent ploy of the "scientific" lay writers. To a member of the group, which in September at the annual conclave is to be accorded a Fellowship in the American Academy of Family Practice for accomplishing far in excess of 15 years of continuing postgraduate education with a minimum of 50 hours formal and 150 hours informal training per three year period, this comes as a total surprise. Most of the specialty groups, in addition to the Academy, also require attendance at either a national or regional seminar every three years. If, however, this should become a regulation, certain restrictions should be imposed. Whatever the regulating body, be it this association as a membership requirement or the Board of Healing Arts as a requisite for relicensure, that body should bring the educational program to the near vicinity of the practicing physician so that he is absent a minimum of time from his practice. The programs should mostly be practical clinical demonstrations and not a facile description of the latest laboratory research on the sex life of the tsetse fly. Commensurate with any time requirements for the above training, there should be a compensating diminution of hospital staff meetings, committee meetings, certification and recertification records and other unnecessary paper work which uses up so much of your valuable time.

Miscellaneous projects are under study at the present time by the various Commissions and Committees. Those of you who are interested in the Physician's Assistant program should consult Dr. William Stoneman's committee. Better ambulance service is being advocated by Drs. Marshall Conrad and Allen Klippel of Councilor Districts Three and Four. Your legislative committee is interested in both of the above, as well as with drug abuse, blood alcohol content and other health issues. There is dissatisfaction in some segments of the state with the present system of rotation of officers. This matter will be handled by the Long Range Planning Committee, and those of you who have complaints or suggestions should make them known to the committee. Please, I beg of you, do not return us to the power politics of a decade ago which reduced this meeting from a scientific and business session to a political shambles. Last to be considered, and I place it there deliberately because it has always been last in doctors' concepts, is finances. It can come as no news to you that the Internal Revenue Service has cast its rapacious eyes on the income accruing from booth space rental at this Convention and advertising in our Medical Journal as a source of replenishment for the bottomless pork barrel. If this plan is successful, some other source of revenue must be found. Failing in this, we can only either cut services or increase dues.

Incongruous as it may seem, my next suggestion is to spend money.

Your Missouri State Medical Association Council has in recent months taken a realistic look at the MSMA office situation in Jefferson City and has appointed a special committee to study the matter and make recommendations concerning whether or not the Association should consider owning its own building in the Capital City. The committee has given a great deal of time to this project, looking first at the Association's future needs and second at what is available in Jefferson City. Today, you will receive a report and recommendation from the Council concerning a proposed permanent home for the MSMA office. I believe that it is imperative that the Missouri State Medical Association act now so that we will be able to meet the future needs of our member-physicians. I urge your support for the Council's recommendation that a building be purchased and remodeled to meet our needs.

So much for the problem, now for the message. *GET INVOLVED.* Medical Health Care has become a hot political issue this year and "thars votes in them thar hills." As both the Greene and St. Louis County bulletins pointed out editorially, Congressmen and Legislators are mostly dedicated reasonable people, who are able to detect fact from fiction and are willing to listen to your pleas. Contact them personally, if possible. If not, write them factually and without rancor expressing your views on the present medical situation. They may not necessarily agree with your position, but I can assure you rapt attention and a courteous response. You owe it to your patients to obtain for them the best possible medical care, politically if necessary. I repeat—*Get involved.*

"The key to a successful auxiliary is individual involvement."

Mrs. Frank J. Valach

Report of Mrs. Frank J. Valach, President of the Woman's Auxiliary

Mr. Speaker, Mr. President, Member of the House of Delegates and Guests:

The Woman's Auxiliary theme this year was "The Key to a Successful Auxiliary Is Individual Involvement."

A highlight of the year was the adoption of the MSMA Auxiliary's Environmental Health and Ecology Package Program by the Woman's Auxiliary to the American Medical Association for use in its official source sheet. This came about after we had presented an exhibit at the National Convention. Many state leaders and several state medical societies have asked for this package.

This is a first and a fine honor for our Auxiliary, thanks to you. Both in education and service, the package is now being used by a good number of our county auxiliaries to promote projects ranging from local-awareness workshops to barrels for glass containers.

Children and youth were our main concern this year with stress on drug abuse, venereal disease and the communication gap. Our Auxiliary members tried to close the communication gap at the Cape Girardeau Fall Conference by first communicating with each other. Judging from the reports received from county auxiliary presidents and chairmen, they've communicated a great deal with their communities. Educational movies on drug abuse and VD have been shown at high school and junior high levels. Seminars were held and members have been active in drug abuse control centers. You have been very concerned about this state of affairs in Missouri and we are doing all we can to help.

Contributions to the Missouri State Medical Foundation and to AMA-ERF are in excess of $4,500 for the year.

Health career scholarship funds and gifts are favorite projects of most of the Auxiliaries, and from $200 to as much as $600 per Auxiliary is loaned or given to students. A Health Careers Fair Unlimited has been most successful in one county for two years, and consequently, will be repeated next year.

Doctor's Day has been recognized by gifts to libraries, science scholarships, square dances or favorite charity donations.

Work is done in all Auxiliary programs, but describing each would make my report too long. So let me finish by thanking you most sincerely for your support, guidance and many courtesies. Having been included in the Council meetings has been of great help. Mr. Ray McIntyre and his staff and the Auxiliary have been so good to me that I will always remember them with great fondness.

Minutes of the

114th Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

House of Delegates

Muehlebach Hotel, Kansas City

April 6-9, 1972

FIRST SESSION

The First Session of the House was called to order at 1:30 PM on April 6, 1972 in the Colonial Ballroom with E. D. Imes, Speaker, presiding. The following officers, councilors and delegates were present during the 114th Annual Session:

Officers

President	Gerald L. Miller, Kansas City
President-Elect	Walter T. Gunn, St. Louis
Vice-President	William W. Gist, Kansas City
Vice-President	Raymond A. Ritter, Cape Girardeau
Vice-President	Joseph L. Johnston, Springfield
Secretary	John I. Matthews, Jefferson City
Treasurer	Charles R. Gulick, St. Louis
Speaker of the House	E. D. Imes, Maryville
Vice-Speaker of the House	R. A. Slickman, Kansas City
Immediate Past-President	Joseph L. Fisher, St. Joseph

Councilors

1st District	John N. Martin, St. Joseph
2nd District	Lysle M. Bach, Hannibal
3rd District	Max S. Franklin, St. Louis
4th District	Louis P. Hetlage, Troy
5th District	James C. Cope, Columbia
6th District	William D. Bradshaw, Clinton
7th District	R. Allen Chandler, Kansas City
8th District	Howard J. McAlhany, Springfield
9th District	E. A. Stricker, St. James
10th District	Eugene T. Hansbrough, Poplar Bluff

DELEGATES

First District

Buchanan	Allen I. Herman, St. Joseph
Buchanan	Richard V. Riddell, St. Joseph
Buchanan	Ernest E. Wadlow, St. Joseph
Clay	Richard Bowles, Liberty
Clay	Chris Fotopoulos, North Kansas City
Clay	Donald Kuenzi, Kansas City
Grand River	Ralph W. Bohnsack, Brookfield
Grand River	Albert Cross, Trenton
Grand River	John Dixon, Brookfield
Grand River	Donald Dowell, Chillicothe
Grand River	Merriam Gearhart, Bethany
Northwest	Henry C. Bauman, Maryville
Northwest	Elvin D. Imes, Maryville
Northwest	Frank B. Matteson, Grant City
Northwest	Troy Morgan, Jr., Albany
Platte	Paul C. Vescovo, Kansas City

Second District

Chariton-Macon-Monroe-Randolph	James E. Campbell, Macon
Chariton-Macon-Monroe-Randolph	D. D. Stuart, Brunswick
Lewis-Clark-Scotland	Landis Y. Davis, Canton
Marion-Ralls-Shelby	Phillip Foreman, Hannibal

Third District

St. Louis City	William E. Allen, Jr., St. Louis
St. Louis City	Luis B. Anglo, St. Louis
St. Louis City	Stephen F. Bowen, St. Louis
St. Louis City	Robert D. Brooks, St. Louis
St. Louis City	Kenneth Bruns, St. Louis
St. Louis City	Richard K. Danis, St. Louis
St. Louis City	Robert K. Dorton, St. Louis
St. Louis City	Joseph C. Edwards, St. Louis
St. Louis City	Richard H. Fallon, St. Louis
St. Louis City	Robert H. Felix, St. Louis
St. Louis City	Paul L. Friedman, St. Louis
St. Louis City	August W. Geise, Jr., St. Louis
St. Louis City	Wm. J. Gillespie, St. Louis
St. Louis City	George L. Hawkins, Jr., St. Louis
St. Louis City	Ronald E. Hoffman, St. Louis
St. Louis City	Otey S. Jones, St. Louis
St. Louis City	Charles A. Jost, St. Louis
St. Louis City	Donald R. Judd, St. Louis
St. Louis City	David N. Kerr, St. Louis
St. Louis City	G. Lynn Krause, Jr., St. Louis
St. Louis City	Charles J. Kromer, St. Louis
St. Louis City	Lawrence M. Lawton, St. Louis
St. Louis City	R. Bruce McCloskey, St. Louis
St. Louis City	William L. Macon, Jr., St. Louis
St. Louis City	Paul F. Max, St. Louis
St. Louis City	Arthur W. Neilson, St. Louis
St. Louis City	Lawrence W. O'Neal, St. Louis
St. Louis City	F. Eugene Pennington, St. Louis
St. Louis City	Hubert A. Ritter, St. Louis
St. Louis City	John S. Sciortino, St. Louis
St. Louis City	Charles S. Sherwin, St. Louis
St. Louis City	James M. Stokes, St. Louis
St. Louis City	Robert W. Tatkow, St. Louis

St. Louis City	Clarence M. Turner, St. Louis
St. Louis City	Joseph B. Vacca, St. Louis
St. Louis City	Leo L. Wacker, St. Louis
St. Louis City	Herbert C. Wiegand, St. Louis
St. Louis City	Carol F. Williams, St. Louis

Fourth District

Franklin-Gasconade-Warren	Harold Hoelscher, Warrenton
Franklin-Gasconade-Warren	Louis E. Jorel, Hermann
Franklin-Gasconade-Warren	James Shea, Washington
Jefferson	Vincente D. Deles, Crystal City
St. Charles-Lincoln	Joseph C. Creech, Troy
St. Charles-Lincoln	Paul H. Rother, St. Charles
St. Charles-Lincoln	John C. Soucy, Jr., St. Charles
St. Louis County	C. Read Boles, St. Louis
St. Louis County	Rudolph E. Catanzaro, St. Louis
St. Louis County	Jack R. Eidelman, St. Louis
St. Louis County	Barney W. Finkel, St. Louis
St. Louis County	Allen P. Klippel, St. Louis
St. Louis County	Jules H. Kopp, St. Louis
St. Louis County	John M. Laird, Jr., St. Louis
St. Louis County	Robert A. Mayer, St. Louis
St. Louis County	Charles Miller, Jr., St. Louis
St. Louis County	Arturo Montes, St. Louis
St. Louis County	Frederick D. Peterson, St. Louis
St. Louis County	Rudy Ruhling, St. Louis
St. Louis County	Melvin M. Schwartz, St. Louis
St. Louis County	James C. Sisk, St. Louis
St. Louis County	Frank J. Valach, St. Louis
St. Louis County	Miles C. Whitener, St. Louis

Fifth District

Audrain	Ben N. Jolly, Mexico
Boone	David Hall, Columbia
Boone	Kenneth K. Keown, Columbia
Boone	B. A. Moranville, Columbia
Boone	Elrie Rodgers, Columbia
Boone	Hugh Stephenson, Columbia
Callaway	Henry Durst, Fulton
Cole	G. Donald Shull, Jefferson City
Cole	Robert Tanner, Jefferson City
Cole	Byron Watts, Jefferson City
Cooper	Byron M. Stuart, Boonville
Morgan	Ray Lyle, Versailles

Sixth District

Johnson	Charles M. Lederer, Warrensburg
Lafayette-Ray	K. Herbert Huber, Richmond
Lafayette-Ray	W. E. Koppenbrink, Jr., Higginsville
Pettis	A. J. Campbell, Sedalia
Saline	James A. Reid, Marshall
West Central	Charles A. Lusk, Butler
West Central	R. L. Magee, El Dorado Springs
West Central	James J. Pascoe, Nevada

Seventh District

Jackson	Edward Altomare, Kansas City
Jackson	Pat A. Barelli, Kansas City
Jackson	Hector W. Benoit, Jr., Kansas City
Jackson	Martin L. Crow, Kansas City
Jackson	Calvin E. Engelmann, Kansas City
Jackson	Fred D. Fowler, Kansas City
Jackson	Edward Haith, Kansas City
Jackson	William D. Hoadley, Kansas City
Jackson	Otis E. James, Kansas City
Jackson	Vance E. Link, Independence
Jackson	R. Stacy Long, Kansas City
Jackson	George J. Lytton, Kansas City
Jackson	Andrew McCanse, Kansas City
Jackson	Clyde V. Martin, Kansas City
Jackson	Carl M. Peterson, Kansas City
Jackson	Gordon C. Sauer, Kansas City
Jackson	R. A. Slickman, Kansas City
Jackson	O. Dale Smith, Prairie Village, Kan.
Jackson	Walter J. Stelmach, Kansas City
Jackson	Edward H. Stratemeier, Kansas City
Jackson	C. Y. Thomas, Jr., Kansas City
Jackson	Wayne K. Tice, Independence
Jackson	Edward J. Twin, Kansas City
Jackson	Charles B. Wheeler, Jr., Kansas City
Jackson	James S. White, Kansas City

Eighth District

Barton	Thomas W. Carroll, Lamar
Dallas-Hickory-Polk-Dade	Evelyn Griffin, Buffalo
Dallas-Hickory-Polk-Dade	O. A. Griffin, Buffao
Dallas-Hickory-Polk-Dade	Doyle C. McCraw, Bolivar
Greene	Macdonald Bonebrake, Springfield
Greene	James T. Brown, Springfield
Greene	Walter A. German, Springfield
Greene	Noel R. Lewis, Springfield
Greene	Stanley S. Peterson, Springfield
Greene	Guido I. Podrecca, Springfield
Greene	William M. Walker, Springfield
Jasper	John R. Esther, Joplin
Jasper	Howard H. Roberts, Joplin
Jasper	W. Russell Smith, Carthage
Ozarks	Paul B. Anderson, Neosho
Ozarks	C. S. Christianson, Mount Vernon
Ozarks	Kenneth Glover, Mount Vernon
Ozarks	A. J. Graves, Mount Vernon
Ozarks	Leo Taylor, Neosho
Webster	T. M. Macdonnell, Marshfield

Ninth District

Mid-Missouri	Billy J. Bass, Salem
Mid-Missouri	Rae W. Froelich, Lebanon
Mid-Missouri	Barbara Russell, Rolla
South Central	Claude W. Cooper, Thayer
South Central	James Hasek, Mountain Grove
South Central	W. T. Morgan, West Plains
South Central	R. H. Smith, West Plains
South Central	Joe Wall, Houston

Tenth District

Butler-Wayne-Ripley	Richard V. Camp, Jr., Poplar Bluff
Butler-Wayne-Ripley	George Ladyman, Poplar Bluff
Butler-Wayne-Ripley	T. E. Ruff, Poplar Bluff
Cape Girardeau	Edwin K. Burford, Cape Girardeau
Cape Girardeau	Melvin C. Kasten, Cape Girardeau
Cape Girardeau	Harold B. Rapp, Cape Girardeau
Mineral Area	C. W. Chastain, Farmington
Mineral Area	Robert F. Dettmer, Ironton
Mineral Area	Norma Farmer, Farmington
Mineral Area	Robert A. Huckstep, Farmington
Mineral Area	Kirby Turner, Potosi
Pemiscot	O. W. Cook, Caruthersville
SEMO	Max A. Heeb, Sikeston
SEMO	Ronald T. Hill, Dexter
SEMO	Alden P. Sargent, Sikeston

The invocation was given by Association President Gerald L. Miller.

The Speaker introduced the Honorable Charles B. Wheeler, M.D., Mayor of Kansas City, who welcomed the MSMA members to Kansas City and presented a key to the city to President Miller. Doctor Wheeler is a member of the MSMA and was a Delegate to the House of Delegates of the 114th Annual Session.

Dr. William W. Gist, Chairman of the Credentials Committee, reported that satisfactory credentials had been presented by seven officers, ten councilors and 112 delegates. He informed the House that this number of delegates constitutes a quorum and dispensed with a roll call.

The Speaker then introduced Dr. Richard Palmer of Alexandria, Va., a member of the Board of Trustees of the American Medical Association and a distinguished guest at the Annual Session.

Dr. R. Allen Chandler, Chairman of the Committee on Arrangements, welcomed the Association members, their wives and guests to the 114th Annual Session and expressed the hope for a successful meeting.

The minutes of the 113th (1971) Annual Session, which were published in the July, 1971 issue of Missouri Medicine, were approved as published.

The Speaker announced appointment of the following reference committees and presented his instructions to the committees:

ON AMENDMENTS TO THE CONSTITUTION AND BYLAWS

C. Y. Thomas, Jr., Kansas City, Chairman
Phillip B. Foreman, Hannibal
Donald Judd, St. Louis
James T. Brown, Springfield
C. W. Chastain, Farmington

ON RESOLUTIONS

John Dixon, Brookfield, Chairman
A. W. Geise, Jr., St. Louis
R. Stacey Long, Kansas City
Miles C. Whitener, St. Louis County
Ben N. Jolly, Mexico

ON REPORTS OF OFFICERS

Paul H. Rother, St. Charles, Chairman
Joseph B. Vacca, St. Louis
Byron Watts, Jefferson City
James A. Hasek, Mountain Grove
O. A. Griffin, Buffalo

ON MISCELLANEOUS AFFAIRS

Melvin C. Kasten, Cape Girardeau, Chairman
James E. Campbell, Macon
Donald E. Kuenzi, Kansas City
Pat A. Barelli, Kansas City
Richard H. Fallon, St. Louis

ON MEDICAL EDUCATION AND PUBLIC WELFARE

Robert H. Felix, St. Louis, Chairman
John M. Laird, Jr., St. Louis County
Robert B. Lyle, Versailles
Charles M. Lederer, Warrensburg
John R. Esther, Joplin

ON NECROLOGY

James J. Pascoe, Nevada, Chairman
Wayne K. Tice, Independence
Alden P. Sargent, Sikeston
Troy Morgan, Albany

The Speaker introduced Doctor Miller who delivered the annual President's Message.

(The President's Message is published on page 477.)

The Speaker then asked Dr. Walter T. Gunn to present the annual message of the incoming President.

(Doctor Gunn's address is published on page 481.)

(Both Presidential messages were referred to the Reference Committee on Reports of Officers.)

The Speaker then invited Mrs. Frank J. Valach to present the annual report of the President of the Woman's Auxiliary.

(This report is published on page 483.)

(Mrs. Valach's report was referred to the Reference Committee on Reports of Officers.)

The Speaker then invited Mrs. Marguerite W. Hubbard of the Missouri Society of the American Association of Medical Assistants to address the House. Mrs. Hubbard expressed the regrets of Mrs. Sue Turner, CMA, President of the Missouri Society, who was unable to attend the meeting due to illness. She then presented the following address:

"It is my pleasure to represent Mrs. Turner and the Society. Five years ago, I spoke to the House of Delegates and asked for your help and support of our Society. Today, I wish to thank you for this help and support which we have received. We have grown in membership and another chapter has been organized this past year at Sikeston, making a total of ten chapters in Missouri. As we continue to grow in the state, we shall strive to give you well-educated and faithful employees.

"A recent survey of members of the American Association of Medical Assistants, Inc. showed that 64% of the assistants are still employed by their first employers for an average of ten years and 11% have been employed by the same employers for more than 19 years.

"We urge our members to study for certification. Medical assisting programs, approved by the American Medical Association, are now offered in 18 colleges, and a number of other colleges have submitted applications for accreditation.

"During the 15th Annual Meeting of the American Association of Medical Assistants, Inc., held at Atlanta, Ga. last November, three grants were received for our education programs. Dr. Wesley W. Hall, President of the American Medical Association, announced that funds in the amount of $25,000 had been allocated to American Association of Medical Assistants, Inc. Merck, Sharp & Dohme decided to match funds and increased its 1972 grant to $25,000. Eli Lilly & Company pledged a contribution of $1,000. For these we are indeed grateful.

"On April 22-23, the Missouri Society will hold its 21st Annual Meeting at Lexington, Mo. The Missouri-Valley Chapter will host the Convention. Theme for the meeting will be "Learning Today: Leading Tomorrow." Dr. Gerald L. Miller, President of the Missouri State

Medical Association, will be our guest speaker at the Saturday night banquet.

"We extend to your medical assistant through you, her doctor-employer, a cordial invitation to attend this meeting. I promise you she will be a better assistant for having attended the meeting.

"Recently we observed "Doctor's Appreciation Day." We of the Missouri Society of the American Association of Medical Assistants, Inc. salute you.

"Today, I would like to pay tribute to the doctor's wife as she stands beside to aid, sometimes behind to encourage and, occasionally, in front to protect him as he performs the duties of his profession. She is the one who greets her man after a day at the office when the assistant has done everything wrong, the patients have been most difficult and the telephone has rung continuously.

"Certainly the doctor's wife deserves a day of appreciation, also. Thank you."

(This report was referred to the Committee on Reports of Officers.)

REPORT OF THE HEALTH CARE FOUNDATION OF MISSOURI

The Speaker then called on Dr. Hector W. Benoit, Jr., Chairman, to present the Report of the Health Care Foundation of Missouri.

(This report was published in full in the May, 1972 issue of Missouri Medicine. Therefore, it is not repeated here.)

(The Speaker referred this report to the Reference Committee on Resolutions.)

REPORTS OF OFFICERS

The Speaker stated that the reports of Officers, Committees and Council were published in the Delegates Handbook and referred the reports to the appropriate reference committees. He asked for any supplementary reports from Committee Chairmen. There were no supplementary committee reports.

The Speaker then requested any supplementary report of the Council. He referred the various subjects within the Supplementary Report of the Council to appropriate Reference Committees.

(This report is published on page 546.)

The Reports of the Officers, Committees, Commissions and Council are as follows:

REPORT OF THE SECRETARY

The Missouri State Medical Association had 4,314 members as of Dec. 31, 1971. This was an increase of 143 members over the previous year.

MEMBERSHIP CHANGES DURING THE YEAR

Members, Jan. 1, 1971		4,171
New Members admitted during year	314	
Reinstated	6	
Total added	320	
Members dropped during year	45	
Deceased	70	
Transferred to other states	47	
Resigned	15	
Total lost	177	
Net Gain		143
Members, Dec. 31, 1971		4,314

Dr. E. D. Imes, Speaker of the House of Delegates, declares the 114th Annual Session of the Missouri State Medical Association open as he calls the house to order on April 6, 1972.

The Committee on Nominations, which is appointed by the President from the House of Delegates, must submit nominations for the following offices:

—Three Vice-Presidents to fill the expired terms of William W. Gist, Kansas City; Raymond A. Ritter, Cape Girardeau; Joseph L. Johnston, Springfield.

—A Speaker of the House of Delegates and a Vice-Speaker of the House of Delegates to fill the expired terms of E. D. Imes, Maryville, Speaker; and Robert A. Slickman, Kansas City, Vice-Speaker.

—Two Delegates and corresponding Alternates to the American Medical Association to fill the vacancies created by the expiration on December 31, 1972, of the terms of Delegate, Stanley S. Peterson, Springfield; Alternate, James C. Sisk, Clayton; Delegate, J. Loren Washburn, Versailles; Alternate, Rae W. Froelich, Lebanon.

—The terms (two years) of the Councilors of the odd-numbered districts expire this year. These Councilors are: John N. Martin, St. Joseph, First District; Max S. Franklin, St. Louis, Third District; James C. Cope, Columbia, Fifth District; R. Allen Chandler, Kansas City, Seventh District; E. A. Stricker, St. James, Ninth District. Delegates from these districts shall meet during the meeting, prior to the last day, and elect the Councilor for their district. The election shall be certified to the House of Delegates on a prescribed form which will be furnished.

The entire session will be held in the Muehlebach Hotel in Kansas City. The House of Delegates will hold its first session on Thursday, April 6, at 1:30 PM in the Colonial Ballroom. Reference Committees will meet in committee rooms in the hotel. The second session of the House of Delegates will convene at 4 PM on Friday, April 7, in the Colonial Ballroom. The final session of the House, a breakfast meeting, will be held in the Colonial Ballroom at 7:30 AM on Sunday, April 9.

Registration facilities will be open on Thursday, April

6, from 11 AM to 4 PM; on Friday and Saturday from 8 AM to 5 PM; and on Sunday from 7:30 AM to 9 AM. Registration will be in the Royal Hall.

John I. Matthews, Secretary

(Referred to Reference Committee on Reports of Officers.)

REPORT OF THE TREASURER

The report of the Treasurer is covered in the Financial Statement which appeared in the March, 1972, issue of Missouri Medicine and is included elsewhere in the Delegates Handbook. Therefore, it is not repeated here.

Charles R. Gulick, Treasurer

(Referred to Reference Committee on Reports of Officers.)

REPORT OF THE EXECUTIVE SECRETARY

Annual Sessions of the Missouri General Assembly are now being held following adoption in November, 1970 of a Constitutional Amendment by the voters of this state. Bills began being introduced in both the Missouri House and Senate for the 1972 session on Dec. 1, 1971 even though the present session of the Legislature did not officially open until Jan. 5, 1972. Of the more than 100 bills now introduced which affect medicine, a good number of these are taking a great deal of the time of your Headquarters staff in following them and taking considered action.

The increase in the number of new physicians licensed in Missouri during the latter part of 1970 and 1971, primarily due to foreign medical graduates who were licensed after the citizenship qualification was discontinued, has generated more activity in physician placement programs over the state, which includes the program carried out by the Missouri State Medical Association.

Even though the program for the Public Affairs Conference in Columbia, Jan. 29-30, 1972 was acclaimed excellent by those in attendance, the number of physicians present must be considered disappointing.

A Caribbean Cruise for members of the Missouri State Medical Association is under development. This may well be named the MSMA Fall Convention Aboard the M/S Boheme, Nov. 11-18, 1972. Scientific programs will be a feature of the tour to add to the fun and pleasure. The entire membership will receive more detailed information on this project from time to time.

Dr. Gerald L. Miller, President of MSMA, has represented the Association at a large number of medically-oriented meetings over the state and elsewhere since the 1971 Annual Meeting. He also has participated in the programs of Councilor District meetings, as well as numerous County Society meetings.

Other activities of the staff are associated with the many projects and programs carried on under the direction of the Association's Committees, Commissions, Officers and Council.

I take this opportunity to express my appreciation to the personnel in your Headquarters Office for their cooperation. They also are most deserving of the thanks of the members for devoted service to the Association.

Raymond McIntyre, Executive Secretary

(Referred to Reference Committee on Reports of Officers.)

Reports of Standing Committees

REPORT OF THE COMMITTEE ON CONSTITUTION AND BYLAWS

A number of matters were referred to the Committee on Constitution and Bylaws by the Missouri State Medical Association House of Delegates and by the Council of MSMA. The following recommendations are made by the Committee on Constitution and Bylaws:

1. To complete the implementation of the recommendation of the House of Delegates in 1971 that past-presidents of MSMA become Delegates-at-Large to the House of Delegates:

   Amend Article IV of the Constitution, entitled "House of Delegates," line 3, by striking the period after the word "societies" and inserting the words. "as well as all past-presidents of the Association who will serve as Delegates-at-Large."

   Amend Chapter III, Section 2 of the Bylaws, entitled "House of Delegates," by adding the sentence, "All past-presidents of the Association shall serve as Delegates-at-Large," after the period following the word "societies" on the final line of the section.
2. It was the ruling of our legal counsel that in certain circumstances, two county societies who decided to hyphenate might suffer the loss of a delegate under the present Bylaws. To correct this inequity, the Committee recommends the following Bylaw amendment:

   To amend Chapter III, Section 2, line 11, following the semicolon after the word "composed" by adding the following words: "And provided that when two or more counties hereafter combine into a hyphenated society, such society shall not lose any delegates by reason thereof";
3. Last year, the House of Delegates gave first reading to an amendment of the Bylaws of the Association concerning junior membership classification. After studying this amendment and the entire issue, the Constitution and Bylaws Committee recommends adoption of the following amendments to the Bylaws of our Association:

   To amend the Bylaws of the Missouri State Medical Association by striking the Junior Membership definition in Chapter I, Section 3, and substituting the following definition: "Junior members shall be limited to those members of component medical societies who are serving a full-time training internship or residency in a hospital approved by the American Medical Association and shall enjoy all of the privileges of active membership."

   To further amend the Bylaws of the Missouri State Medical Association Chapter VIII, Section I (a), line six, by striking the words "one-half of the per capita levy for active members" and inserting the words, "$10.00 per year."

   To further amend the Bylaws of the Missouri State Medical Association Chapter VIII, Section I (b), lines 2 and 3, by striking the words "and $5.00 per year on each junior member."

   And by finally amending the Bylaws of the Missouri State Medical Association Chapter VIII, Section 3, line 3, by adding the words "and Junior" after the word "active" and before the word "member."
4. The House of Delegates asked our Committee to study the possibility of developing a special membership classification for students.

The Committee believes that such a membership avenue for students is already open in our "Associate member classification" and recommends that all county societies who do not have such a classification in their Bylaws develop one and encourage students to become "Associate members" of county medical societies and, through their county societies, "Associate members" of the Missouri State Medical Association.

5. The Committee was asked by the House of Delegates to suggest a possible change in the Constitution to allow members of the Association to initiate petitions to seek a vote of MSMA members on major issues.

   To make such an initiative possible, the Committee recommends the following change in the MSMA Constitution which would have to lay over until 1973 before final action of the House of Delegates.

   To amend Article IX of the Missouri State Medical Association Constitution, line 8, by adding the following new paragraph after the period, "Petitions signed by 20% of the members of the Association, including petitioners representing at least one half of the component medical societies, will initiate a referendum regarding changes in the Constitution or Bylaws or questions before the House of Delegates or Council. A majority vote of all members of the Association shall determine the question."

6. The Committee on Constitution and Bylaws also was directed by the House of Delegates to study the problem of resolution introduction and to make recommendations on this matter to the House. This direction came after the opening session of the 1971 session, at which time there was a deluge of late resolutions.

The Committee has already recommended to the As-

Opening Session of the 114th House of Delegates

"We have expertise, we have dedication and we have commitment," declared MSMA President Gerald L. Miller in his official address to the House of Delegates.

President-Elect Walter T. Gunn discussed current problems and future goals of the MSMA as he urged members to "get involved" in his remarks before the opening session.

The first session of the MSMA House of Delegates was held in the Colonial Ballroom of the Hotel Muehlebach in Kansas City. Although an unfortunate "demise" of the air-conditioner caused them to doff their coats, the Delegates proceeded with their deliberations.

sociation office that every effort be made to encourage the early introduction of resolutions. The Committee further recommends that the House adopt the following policy concerning the introduction of resolutions:

All resolutions to appear in the Handbook must be received at the Association office 45 days prior to the opening session of the House. Any resolution to be introduced after that time must be made available to the House of Delegates 24 hours before the session at which it is to be introduced. At least 200 copies of the resolution or funding for same must be supplied by the individual or society introducing the resolution. At the second session of the House of Delegates, the same procedure would be followed, but such introduction would be allowed only if approved by two thirds of the delegates voting. The same procedure would be followed for the third session, but at that time it would take unanimous vote of the House to allow such introduction.

Kenneth C. Hollweg, Chairman
Miles C. Whitener
Paul F. Max
Donald M. Dowell
Kenneth E. Knabb

(Referred to Reference Committee on Constitution & Bylaws.)

REPORT OF THE COMMITTEE ON PUBLICATION

The 68th volume of Missouri Medicine was completed with the publication of the Dec., 1971 issue. During the year, 13 issues were printed and distributed. Eleven of these issues contained scientific papers, special articles, organizational reports, monthly messages from the Presidents of the Association and the Auxiliary and news and other items of interest to members of the medical profession. The July 1 issue contained the official proceedings of the 1971 (113th) Annual Session of the MSMA House of Delegates. The July 15 issue was the annual Membership Directory.

There were two special issues of the Journal. The scientific articles in the April issue were contributed by members of the faculty of the University of Missouri School of Medicine and the articles in the December issue were contributed by members of the staff of Ellis Fischel State Cancer Hospital.

During the year, 63 scientific papers and 14 special articles were published. Most of the articles were written by Missouri authors. The Editors wish to express appreciation to all authors who submitted scientific manuscripts and to all other individuals, institutions and organizations, including the administrations, faculties and publications departments of the University of Missouri, St. Louis University, Washington University and University of Missouri-Kansas City Schools of Medicine and Ellis Fischel State Cancer Hospital for their valuable contributions.

At the year's end, the Journal circulation was 4,850.

In September, 1971, the Journal paid a total of $766.08 on advertising revenue for the year 1968-1969 which was defined as taxable unrelated income by the Internal Revenue Service.

The complete financial report for the Journal is included in the financial statement for the Missouri State Medical Association for the year 1971. The report was published in March, 1971 issue of Missouri Medicine and is included in the Delegates' Handbook.

Joseph V. Finnegan, Chairman
William C. Mixson
Charles S. Sherwin
Byron M. Stuart
Wilfred E. Wooldridge

(Referred to Reference Committee on Reports of Officers.)

REPORT OF THE COMMITTEE ON LEGISLATIVE AFFAIRS

Annual sessions of the Missouri General Assembly have brought a great change in the Legislative picture in Jefferson City and have precipitated a great deal of new activity for the committee and the MSMA staff this year.

The 1972 Session, the Second Session of the 76th General Assembly, has brought on a rash of medical legislation. All such bills are being followed closely by the committee and the staff. More than 100 bills of medical interest, many of them of real significance, are under close scrutiny. MSMA has supplied a number of witnesses, principally in support of good health legislation.

The current session of the General Assembly will conclude on April 30. Thus, the even-year session will be a month and one half shorter than odd-year sessions which do not conclude until June 15.

The Legislative Committee needs the support of every Missouri physician this year and in the future if we are to continue to be successful in working for good health legislation in Missouri. The committee urges every MSMA member to become personally acquainted with his State Representative and Senator, as well as with his Congressman and two United States Senators. We will continue to work with the AMA on national legislative matters.

John I. Matthews, Chairman
Gerald L. Miller
Joseph L. Fisher
Walter T. Gunn
Robert E. Bregant

(Referred to Reference Committee on Miscellaneous Affairs.)

REPORT OF THE COMMITTEE ON PLANNING

The Committee on Planning held one meeting during the year on Nov. 14, 1971 in Columbia.

The following recommendations of the Committee were submitted to the MSMA Council at the December meeting:

The Committee took a look at present Association-sponsored insurance programs and heard about two proposed new programs and then recommended that an advisory study committee on insurance and investment matters be appointed by the President of the Association to decide (1) if such programs are a needed function of MSMA and (2) if they are a needed function, then to establish a protocol in regard to what should be done in the fields of insurance and investment.

The Committee discussed ways in which to involve house staffers and young physicians in Association affairs and recommended to the Council that ways should be devised to include students and house staff members in Association affairs.

The Committee recommended that the Council consider the Association's Constitution and Bylaws and re-examine the tradition by which officers of the Council and of the Association are elected. This consideration is to be given in order to stimulate greater interest of the general membership in the organization.

The Committee recommended to the Council that a program be worked out to interest young practitioners in county and state organizations and suggested that each Councilor should be responsible for a program within his own district to see that young physicians are contacted by the Councilor or a representative. The MSMA office would keep Councilors informed of the names of new physicians in their districts.

The Committee recommended to the Council that MSMA staff be authorized to upgrade the information brochure which goes to all new members of the Association.

Also, the Committee recommended that a way should be devised to provide rapid two-way communications between the Association office and the members.

And, the Planning Committee finally recommended that greater use should be made of MSMA Committee and Commission members as moderators during programs at the Annual Session.

David N. Kerr, Chairman
Oral B. Crawford
James A. Hasek
Hector W. Benoit, Jr.
Charles P. McGinty
James C. Cope
Albert Cross
C. Read Boles
William D. Bradshaw
J. Will Fleming

(Referred to Reference Committee on Reports of Officers.)

Reports of Commissions and Ad Hoc Committees

REPORT OF THE COMMISSION ON PUBLIC AFFAIRS

(This report includes all reports of ad hoc committees set up under this Commission.)

The Missouri State Medical Association's Commission on Public Affairs has been busy on a number of organizational activities during the past year.

A Committee chaired by Dr. Hubert Ritter of St. Louis, which included Dr. Lawrence O'Neal of St. Louis and Dr. Allen Klippel of St. Louis County, arranged the program for the Annual Public Affairs Conference held the weekend of Jan. 30-31, 1972 at the Ramada Inn in Columbia.

The Conference, a successor to the County Society Officer's Conference, was developed on an issue-oriented basis and the program seemed to be most well received. Unfortunately, bad weather just before the meeting kept attendance down and only 80 persons were in attendance at the banquet. Many of these were members of the Council, Officers and program participants and their wives. The meeting's purpose is excellent, but some thought needs to be given to making changes before having another such Conference in an effort to reach more physicians. An all-out promotional effort was made on this year's meeting with a full program mailing to the entire MSMA membership plus excellent publicity in Missouri Medicine.

This same committee headed by Doctor Ritter also is in charge of arrangements for Orientation Sessions for new members. The Commission has recommended that such sessions be held in conjunction with those in some of the larger societies in several locations rather than at just one meeting.

The Commission also has been actively involved, along with President Gerald L. Miller, in working for a meaningful program in the field of venereal disease, drug abuse and alcoholism. President Miller has been in close liaison with the Division of Health and the Department of Education on this matter, and it is hoped that this close cooperation will lead to a new educational effort in Missouri's schools to stress an overall health curriculum with emphasis at this time on the three subjects mentioned above.

The Commission also has been active in developing and promoting a conference, entitled "Large and Small Hospital Organization of the '70s," which was scheduled to be held in Jefferson City on March 9. Co-sponsors included the Missouri Association of Osteopathic Physicians and Surgeons, the Missouri Hospital Association, the Missouri Regional Medical Program and the Bi-State Regional Medical Program. Outstanding speakers were scheduled to participate, most of whom had been participants at the outstanding Estes Park Hospital Staff Conferences.

Our Commission's Ad Hoc Committee on Emergency Medical Care chaired by Dr. Allen Klippel of St. Louis County has held a meeting and reiterated the Association's support for the passage of legislation to license ambulances and ambulance personnel, give Missouri a Good Samaritan Law and lower the percentage of alcohol in the blood to determine intoxication from the present .15 to .10, the nationally recognized standard.

The Committee also recommended that MSMA cooperate with state agencies and organizations in developing a regional concept of emergency medical care in Missouri.

Another recommendation of the Committee was that first aid instruction be included in all drivers training courses, a section of first aid instruction be included in the drivers license manual and questions on first aid subjects be included in the drivers test.

Included with this report are supplementary reports from the Commission's Ad Hoc Committee on Environmental Health and the Ad Hoc Committee on Medical Aspects of Sports.

Richard Bowles, Chairman
Joseph Kendis
W. W. Tillman, Jr.
Joseph A. Zimmerman
H. V. Guhleman, Jr.
Hubert Ritter
A. W. Neilson
Richard Sutter
Troy Morgan
John T. Crowe
Thomas J. Fischer
John L. Mothershead
C. Keith Whittaker
John L. Barnard
Allen Klippel

REPORT OF AD HOC COMMITTEE ON ENVIRONMENTAL HEALTH

The 1971 activities of the Environmental Health Ad Hoc Committee of the Commission on Public Affairs were as follows:

1. Active participation in the work of passing Proposition #3, which was approved by the electorate on Oct. 5, 1971. This proposition was a $150 million bond issue designed to assist cities, counties and sewer districts in abating water pollution in the state of Missouri. By passing the proposition, Missouri citizens assured them-

selves of cleaner water and, also, that Missouri general revenue would be able to meet its share of the costs. Thus, the federal government will pay 50%-55% of the cost, the state 25% of the cost and the local government will pay 20%-25% of the expense.

The Missouri State Council backed the proposition by unanimously approving a resolution supporting the Missouri Water Pollution Board.

2. The Council has before it a resolution supporting the Missouri State Conservation Commission's efforts to expand its programs and to organize enlarged facilities for parks and playgrounds. It is the Ad Hoc Committee's feeling that such enlarged conservation facilities will lead to better physical and mental health and a fuller life for Missouri citizens.

3. The Chairman was appointed to the Governor's Council on Occupational Health and Safety Task Force. This Council concerns itself with the Williams-Steiger Occupational Safety and Health Act of 1970. Work by the Council on implementation of the law is going forward.

4. The Missouri State Medical Association Auxiliary, under Mrs. Marshall Metzgar, developed an effective program on environmental health for women of Missouri. Supported by the Council, the display was exhibited at the Missouri State Annual Meeting and at the AMA meeting in Atlantic City, where the Missouri State Auxiliary won high praise for effective leadership in the field of environmental health.

5. The final report of the Governor's Conference on Urban Affairs was released on Jan. 5, 1971. The three-day conference, held on March 31-April 2, 1970, attracted 500 participants. The Conference sought to develop specific policies to serve as guidelines for agencies throughout the state in their efforts to deal with problems of the cities.

6. Efforts and funds of the Missouri State Medical Association, the St. Louis Medical Society and the St. Louis County Medical Society toward a study on air pollution effects on the health of men were quickened when the Environmental Protection Agency indicated its eagerness to begin such funded studies in St. Louis. The preliminary contacts have been made and plans are going forward.

Arthur W. Neilson, Chairman

REPORT OF AD HOC COMMITTEE ON MEDICAL ASPECTS OF SPORTS

One formal meeting and one informal meeting of the Committee were held during the year; the first in Jefferson City laid the groundwork for Committee projects.

During the summer of 1971, a meeting was held to outline a program which had been requested by the Missouri State High School Activities Association for presentation to coaches attending a clinic at one of the state colleges.

The Chairman of the committee has held several meetings with Mr. Irvin Keller, director of the sports program of the Missouri State High School Activities Association, regarding ways in which physicians could assist in the improvement of the quality of medical care of the athlete. The Chairman is to make a talk at the State High School Athletic Directors Meeting in April of this year concerning plans of the Ad Hoc Committee in developing annual clinics to be held throughout the state to improve the relationship between medicine and the athlete and coach.

The problem with drug abuse in the athlete has repeatedly been discussed by the committee. During the recent NAIA Track Meet in Kansas City, permission was obtained from NAIA coaches and directors to conduct a voluntary test program. Approximately 50 of the 450 competitors volunteered without knowing that their urine was to be tested for drugs. Urine samples were taken and a verbal report from the toxicologists is that numerous drugs have been isolated from the urines.

The committee plans to pursue its programs in the future to work to improve the welfare of the athlete in both conditioning and the prevention of medical problems.

Donald M. Spencer, Chairman
H. Peter Ekern
David W. Brown
Edwin C. Ernst, Jr.
E. T. Hansbrough
Phillip C. Lehman

(Referred to Reference Committee on Miscellaneous Affairs.)

REPORT OF THE COMMISSION ON MEDICAL ECONOMICS, THIRD PARTY MEDICINE AND GOVERNMENTAL RELATIONS

(This report includes all reports of ad hoc committees set up under this Commission.)

During the past year, our efforts have been primarily directed to the study of resolutions adopted by the 1971 House of Delegates and referred to our Commission by the Council. Several recommendations have been presented to the Council for their approval. Three ad hoc committees were established.

Charles W. Chastain, M.D., Farmington, chaired the Ad Hoc Blue Shield Committee. This is an ongoing committee established to study resolutions adopted and to consider the relative merits and inherent problems of the two plans with the intent of improving benefits to the subscribers and rapport with physicians. This committee also studied coordination of benefits under health and accident policies and in Blue Shield contracts. The following statement was furnished by the Kansas City Plan:

> "This plan endorses coordination of benefits. Studies have shown that the person who has health insurance beyond the point at which it will pay his bills is a heavy user. It is also a principle, supported by the medical profession, as well as by carriers, that the public should not have an incentive to be sick. Coordination of benefits, properly administered, eliminates payments which exceed charges, removes that incentive and ends to hold rates down."

It was felt that coordination of benefits does help prevent the over-utilization of health insurance. This committee also felt that both plans are working diligently to insure the proper election and representation of subscribers on their respective Boards.

The Kansas City plan has now changed its Bylaws. Subscriber representatives were increased from eight to 13 and osteopathic board members were increased from one to three. The report of the last committee meeting is attached.

Victor B. Buhler, M.D., Kansas City, was appointed chairman of the Ad Hoc Blue Cross Committee. This committee studied and evaluated the methods of reimbursement of hospitals by Blue Cross to determine the role of Blue Cross in contributing to the increase of hospitalization expense. Highlights of reimbursement

The science of treating gas pain

1. When gas is *entrapped* in the G.I. tract, it can cause pain severe enough to mimic that of peptic ulcer, angina pectoris, or myocardial infarction.[1,2] **2.** Most of the gas symptoms brought to your attention will be due to gas trapped in the intestines, not the stomach. **3.** The source of most G.I. gas is air-swallowing, often an anxiety response of which the patient is unaware.

new PHASIL® treats gas pain scientifically

1. Phasil is the only single-entity simethicone tablet with measured medication for both stomach and intestine. Phasil's protected inner core releases 40 gm. of *specially-activated* simethicone in the intestines, the most common site of gas entrapment. **2.** Phasil also releases 20 mg. of *specially-activated* simethicone while in transit through the stomach, for immediate dispersion of any gas accumulated there. **3.** Phasil is safe: no systemic effects, no untoward reactions, no contraindications.

Sig.: One Phasil tablet before meals and at bedtime provides reliable relief of gas pain, bloating and distention. Available in bottles of 100 tablets.

References: 1. Roth, J. L.: *Ann. N.Y. Acad. Sci. 150* 109, Feb. 26, 1968. **2.** Reich, N. E., and Fremont, R. E. (eds.): Chest Pain, The Macmillan Company, New York, 1961, p. 348.

rc Reed & Carnrick/Kenilworth, N.J. 07033

The Honorable Charles B. Wheeler, M.D., Mayor of Kansas City, welcomed President Gerald L. Miller and members of the MSMA at the opening session. Mayor Wheeler is a member of the MSMA and was a Delegate to the Annual Session. He spoke briefly and presented a Key to the City to Doctor Miller.

methods, rate determination and cost control programs were presented by the plans. It was the consensus of the committee that Blue Cross does not contribute to increased hospital costs. Increased demand and overutilization of services appear to be the main contributing factors. Hopefully, additional information from Blue Cross will soon be published in Missouri Medicine.

Stanley S. Peterson, M.D., Springfield, continued as chairman of the Ad Hoc Committee to Study the Negotiation of Professional Fees. This Committee submitted a suggested organizational plan to accomplish the negotiation of professional fees and working conditions within the framework of organized medicine. It was emphasized that this was not a finished plan, but that it should be considered as a framework or a method that could be used. A copy of this plan follows.

Herbert C. Wiegand, Chairman
Rolla B. Wray
Charles W. Chastain
Robert H. Lund
Blaine Z. Hibbard
Erroll W. Allen
W. J. Ferguson
Kenneth K. Keown
Rae W. Froelich
Francis M. Maple
Stanley S. Peterson
Victor B. Buhler
Mark D. Eagleton
E. E. Wadlow
Louis P. Hetlage

AN ORGANIZATION FOR THE NEGOTIATION OF FEES

The following is presented as a basis for discussion and not to be considered a final plan:

The first consideration should be whether or not this should be a part of the Missouri State Medical Association or a separate department. The Committee believes that it can be done either way, but that it is more desirable that it be done as a part of the Missouri State Medical Association. After all, if another function is taken out of the state office, there will be less reason for the state office to exist than there is now, and we should be trying to augment the importance of the Missouri State Medical Association rather than reduce its importance. Therefore, we believe that we should try to make this a part of the Missouri State Medical Association operation.

Secondly, if this organization is to be effective, there has to be a "two-way street"; not only does the doctor have to have someone to represent him, but the doctor has to agree to do what is agreed to without reservation, other than the fact that he can withdraw from the organization if he so desires. This will so necessitate each man having an opportunity to join this part of the Missouri State Medical Association and agree to abide by the rules. This will take some doing and is going to cost some money, and it also will take a great deal of time which is not available with the present staff. With the above as the ground rules for a plan, the committee submits that it should be done somewhat as follows:

A section on socio-economics should be established in the Missouri State Medical Association. This section should be manned by personnel who are able to go out and meet with the doctors and explain the mission of the section and obtain the signed agreement from the doctors that they will participate. The mission which they will explain is simply that physicians services are now being controlled by a number of third-party payers and this number is going to increase. Physicians at the present time have no common voice which can tell anybody we will or will not participate in any plan. Also, when we do participate in a plan, we have no way of encouraging the physicians to stay with the participation (consider the present situation with Welfare in the state of Missouri).

After the section has been established and the doctors have been signed up and the fees determined necessary to do this job at the proper level, then the implementation of negotiation would be started. At this point, when a group made a medical decision about a group of people for whom they were paying the fees, the doctors would then be able to sit down with this group and say that this is not the way to do this and make proper recommendations as to what should be done, other than just receiving through the mail a notice that it will be done this way from now on. After negotiations were carried through with the third party, then the results of these negotiations would be returned to the Council of the Missouri State Medical Association, who, in turn, would review the accomplishment of the negotiating team (the Committee assumes that the Council would be involved in all levels of the conversation, but officially, would review the negotiations at the point of deciding whether they were reasonable). If the Council decided this was a reasonable report, then it would be submitted to the members for ratification. If it was ratified, then the doctors would be bound to deliver these services until a new situation was negotiated.

As noted above, this is not supposed to be a finished plan, but it is supposed to be a basis for discussion at our committee meeting. We are completely conscious that this is an idea which will be repugnant to a great many physicians. However, we believe that subjugation is also an idea which is repugnant to a great many physicians. We are fully conscious that a physician will be giving up some of his present rights if we do organize such a group as this, and we do make it stick. However, these rights are being abrogated quite rapidly at the present time. We look upon this, also, as a protective mechanism for the physicians themselves, as well as the patients (again we submit that the Welfare situation in Missouri is an example which we might well consider).

REPORT OF THE AD HOC BLUE SHIELD COMMITTEE

The Ad Hoc Blue Shield Committee met on Nov. 10, 1971 and Feb. 11, 1972.

Recommendations of the 1970-1971 Ad Hoc Blue Shield Committee were reviewed and discussed with representatives from the Blue Shield Plans. It was found that these recommendations were, with only one or two exceptions, in the process of being implemented.

The charge to develop a new and effective mechanism for electing subscriber-members of the Governing Boards of the Blue Shield Plans was discussed. Proposed changes in the bylaws of the Kansas City Blue Shield Plan would appear to solve this problem.

The recommendation of the 1970-1971 Committee for elimination of the Voting Board of the St. Louis Blue Shield Plan and for direct election by participating members of the Board of Trustees was discussed. We felt that the Voting Board had some valuable functions and should be preserved, but that the present method of selection of participating member (physicians) representatives on the Voting Board was cumbersome and potentially unrepresentative. A recommendation for an alternative method of selection of participating members of the Voting Board follows.

Coordination of benefits, the implementation of which was recommended by the previous ad hoc committee, is still considered desirable and is being applied as far as possible by both Blue Shield Plans.

The Comprehensive Health Care program is being developed by the St. Louis Blue Shield Plan and should be offered to subscribers within a year. Dental benefits, in addition to benefits for oral surgery and maxillofacial surgery currently covered by Blue Shield Plans, were discussed. Some Kansas City Plans include dental benefits. A dental organization in the eastern part of the state has developed its own plan, separate from Blue Shield, which is marketed by the St. Louis Blue Cross organization. We do not feel that the St. Louis Blue Shield should compete with this plan.

In reference to the method of election of participating members to the St. Louis Blue Shield Voting Board, the Committee recommends:

(a) That the nomination of participating members to the Voting Board of Missouri Medical Service be made by county medical societies, county osteopathic societies and the Board of Trustees of Missouri Medical Service; and

(b) That participating members be elected by mail ballot of participating medical or osteopathic members in a designated geographical area, in numbers proportional to the number of participating members eligible to vote in that area, for staggered terms not to exceed three in succession; and

(c) That subscriber members be nominated by the Voting Board, the Board of Trustees, county medical societies and county osteopathic societies; and

(d) That subscriber members be elected by the Voting Board, for staggered terms not to exceed three in succession; and

(e) That the Board of Trustees be elected by the Voting Board as is presently being done.

Charles W. Chastain, Chairman
Blaine Z. Hibbard
Roy W. Pearse
Robert H. Lund
Robert W. Forsythe
W. J. Ferguson

(Referred to Reference Committee on Resolutions.)

REPORT OF THE COMMISSION ON CONTINUING EDUCATION AND HEALTH MANPOWER

(This report includes all reports of ad hoc committees set up under this Commission.)

The Commission on Continuing Education and Health Manpower appointed three Ad Hoc Committees, as follows: Ad Hoc Committee on Continuing Medical Education, Ad Hoc Committee on Health Manpower and Ad Hoc Committee—114th Annual Session. The Ad Hoc Committees implemented directives of the MSMA Council and worked closely with allied health services in the study and solution of problems referred. Specific details of each Committee can be found in the individual Ad Hoc Committee Annual Reports published herein.

J. F. McDonnell, Chairman
Richard A. Fraser
R. E. Catanzaro
W. Thomas Morgan, Jr.
W. Wayne Boydston
Charles Spears
A. Sherwood Baker
Edward D. Kinsella
Paul O. Hagemann
Charles A. Worley
Edwin M. Powell
H. Peter Ekern
B. J. Bass
George H. Ladyman
Paul R. Young

REPORT OF THE AD HOC COMMITTEE ON CONTINUING MEDICAL EDUCATION

At the Committee meeting on Jan. 16, 1972, the Chairman introduced the ten new Councilor District CME Directors.

The Chairman explained that the Committee researched CME programs in other states and drafted a program for MSMA, Phase I and Phase II, which was accepted by the Council for implementation. The Oregon

Mrs. Frank J. Valach, St. Louis, President of the Woman's Auxiliary to the MSMA, reported to the House of Delegates during the first session. She cited recent accomplishments of the State Auxiliary.

Medical Association program was included in the research and Doctor Young reported, after about two years of experience, the rules had actually been enforced, expelling 11 members from the Oregon Medical Association for failing to comply with the CME regulations.

It was agreed that CME is a part of good patient care, and definition of quality care must be established in setting up an educational program. Attention was called again to the need for a decision on basic control or enforcement using (1) voluntary or positive award system; (2) CME participation as a condition of MSMA membership renewal; or (3) as a condition for annual renewal under the Missouri State License Law-Medical Practice Act to be amended accordingly.

The Committee agreed that determination is necessary of specific CME needs and programs to meet each local need. Accreditation was discussed for medical school and hospital-based CME programs.

Following a detailed discussion, it was agreed that a one- or two-day workshop should be scheduled during April or May of 1972, inviting all CME Councilor District Directors and the CME Committee, plus others interested, to hear CME speakers of national repute. After such a workshop, possibly local area workshops could be set up in the various councilor districts or combined districts to meet respective local needs. The MSMA Council, in session on Jan. 28-29, 1972, agreed to support the development of such a workshop and that, after a formal program had been proposed along with a proposed budget, the Council would consider proper funding for this workshop.

Council approved invitation to the Missouri Association of Osteopathic Physicians and Surgeons for endorsement of the CME statewide program since, in some districts, hospital staffs include M.D.'s and D.O.'s; others, D.O.'s only; and still others, M.D.'s only.

It was suggested, also, that each CME District Director immediately research his district to learn specific CME needs and report such needs to the Committee Chairman, possibly at the state workshop in April or May (Phase I).

Accreditation and self-assessment programs were discussed. It was agreed that every effort should be made to separate educational process from the enforcement or punitive process.

Paul R. Young, Chairman
A. Sherwood Baker
George H. Ladyman
W. Wayne Boydston
Robert S. Mosser
Ralph R. Hall
E. James Potchen
Arnold Block

REPORT OF THE AD HOC COMMITTEE ON HEALTH MANPOWER

This committee is working in liaison with the Missouri Nurses' Association, Missouri Hospital Association, Missouri League for Nursing, Inc., Missouri State Association of Licensed Practical Nurses, Inc. and the Missouri State Board of Nursing, attempting to establish acceptable guidelines through written resolutions concerning nursing practices presently in the following four categories:

1. The starting of blood transfusions without a physician in attendance.
2. The addition of medications to IV fluids, RN vs Pharmacist.
3. Tracheal intubation by professional nurses—when?
4. Intracardiac injection of emergency drugs. If so, when?

Also, eight M.D.'s and eight RN's appointed by the American Medical Association and the American Nurses' Association, respectively, have formed a National Joint Practice Commission, and this committee will closely examine and work with their recommendation.

Charles A. Worley, Chairman
B. J. Bass
A. J. Signorelli
John H. Walters
Richardson K. Noback

REPORT OF THE AD HOC COMMITTEE 114TH ANNUAL SESSION

After a study and conference with the Commission on Interspecialty Medicine, the Committee invited the respective medical specialties to sponsor and develop Scientific Sessions of their own choosing to be included in the MSMA 114th Annual Session, April 6-9, 1972, Kansas City. The Committee is pleased to report the response was very gratifying. Seventeen Scientific Sessions are being sponsored and developed by the respective medical specialties. In addition, the Program Committee is sponsoring three General Sessions.

The Program Committee invited the medical specialties to schedule also their business and social functions during the MSMA Annual Session. Again, the response was good.

The Committee revised the Scientific Session format, as described above, in an effort to promote greater interest and attendance at Scientific Sessions.

Special appreciation is expressed to the Commission on Interspecialty Medicine for its cooperation.

Edwin D. Kinsella, Chairman
W. Wayne Boydston
Paul R. Young
George H. Ladyman
W. Thomas Morgan, Jr.
Paul O. Hagemann
J. F. McDonnell

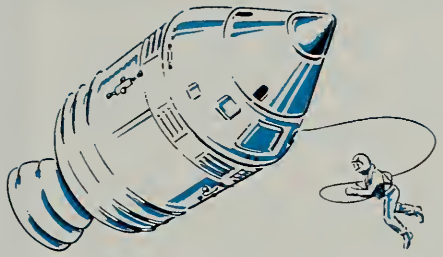
(Referred to the Reference Committee on Medical Education and Public Welfare.)

REPORT OF THE COMMISSION ON MEDICAL-LEGAL AFFAIRS

(This report includes all reports of ad hoc committees set up under this Commission.)

Our Commission evaluated the responses to the professional liability survey of MSMA members and recommended that a meaningful outline of the results be prepared and mailed to all members. It was further recommended that the article, "Malpractice Prophylaxis," prepared by the Oklahoma State Medical Association and consisting of 28 suggestions that could prevent medical malpractice be printed and sent to members. The Council has approved these recommendations and these items will be mailed to all members.

An Ad Hoc Committee to Study Professional Liability Group Programs was appointed. Irving H. Clark, M.D., Kansas City, is chairing this committee. The recently developed AMA program has been discussed by this committee. Neither the broker, the carrier or the AMA is prepared to present this to our Association for consideration at this time. On March 4, the Committee will meet to discuss two group plans from Missouri brokers who have expressed interest in developing a program for our Association.



Man in space, now fait accompli, re-emphasizes the importance of Uro-Phosphate therapy. Research into the effect of space travel on the astronaut reveals that weightlessness causes loss of bone calcium. As the bones are required to bear less and less of the weight of the body they lose calcium, increasing the calcium content of the urine. When physical activity is reduced, the acidity of the urine should be adjusted to keep increased calcium in solution . . . . a prophylaxis to prevent kidney or bladder calculi.

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William R. McPhee, M.D., Kansas City, was appointed Chairman of an Ad Hoc Medical Examiner Legislation Committee in response to a resolution adopted by the 1971 House of Delegates. The report of this committee follows.

Joint meetings with the Medical-Legal Committees of the Missouri Bar Association and the Missouri Association of Osteopathic Physicians and Surgeons have been held. These have been quite worthwhile and well attended.

The three organizations have agreed to present the "National Interprofessional Code for Physicians and Attorneys" to their respective organizations and to seek approval for the promulgation of this code in their official publications. This code was prepared by the AMA and ABA and sets forth suggested rules of conduct for physicians and attorneys in their interrelated practice. It is believed that these guidelines will be quite helpful for members of both professions which have had little or no experience in dealing with the other profession.

During these joint meetings, we also have discussed legislation, contingency fees and payment of medical fees for services rendered a patient at the request of an attorney or for services rendered relative to litigation. It was agreed that the attorney should protect these fees and request permission of the client and patient to pay the physician.

Another joint meeting will be held in May.

Daniel L. Yancey, Chairman
Joseph S. Cope
Jerome I. Simon
Irving H. Clark
Jack R. Eidelman
George P. Wilson
Robert E. Funsch
Frederick J. McCoy
Ned B. Chase, Jr.
Jack S. Sanders
Lee T. Ford, Jr.
Jack L. Vinyard
Wilbur P. McDonald
Harold B. Rapp
William R. McPhee

REPORT OF AD HOC COMMITTEE ON MEDICAL EXAMINER LEGISLATION

Upon investigation, this Committee finds that both the St. Louis County and Jackson County (Kansas City) Charters, which become effective on Jan. 1, 1973, call for the establishment of a medical examiner program in both counties.

St. Louis County Charter, Section 4.200:

Sub-Section 1: "The director of hospitals shall appoint a chief medical examiner and as many assistant medical examiners and professional specialists as may be provided for by ordinance. The chief and each assistant medical examiner shall be a licensed physician experienced in forensic pathology, or shall be eligible to be so licensed, and who shall become licensed within one year after his appointment."

Sub-Section 2: "Whenever in the opinion of the chief medical examiner, after a full investigation of the circumstances and cause of death, there is reasonable suspicion of a violation of the criminal or civil law of the state, a full copy of all evidence and opinion of the investigating examiner shall be promptly filed with the prosecuting attorney and the department of police."

Sub-Section 3: "The chief medical examiner shall keep full and complete records in his office, properly indexed, giving the name, if known, of deceased persons whose deaths have been investigated by him or any of his assistants, the place where the body was found, date and cause of death, and all other information that may be required by law or by ordinance or that the chief examiner deems pertinent. All such records shall be available for inspection by the prosecuting attorney, the attorney general, the superintendent of the state highway patrol, the department of police and by any party or his attorney having a justifiable interest therein."

Sub-Section 4: "The chief medical examiner and each assistant shall have power to administer oaths and affirmations, take affidavits, and make examinations as to any matter within their jurisdiction but they shall not be required to summon a jury of inquisition."

Sub-Section 5: "In addition to the duties prescribed by this charter, the chief medical examiner, either directly or through assistants, shall perform those duties and functions prescribed by law for coroners except as otherwise provided in this charter or by ordinance."

Sub-Section 6: "The prosecuting attorney, the department of police and all interested or affected officers and employees of the county shall cooperate fully with and assist the chief medical examiner in the performance of his duties."

Jackson County (Kansas City) Charter:

Section 9: "The medical examiner shall be appointed by the executive, as provided in this charter, for a term of four years. He shall be a licensed physician and a pathologist certified by the board in that specialty or eligible for such a certification. If no pathologist is available for appointment, an acting medical examiner who is a licensed physician may be appointed to serve for a period not to exceed one year."

Section 10: "The medical examiner may appoint and remove medical assistants, who shall be licensed physicians, appoint investigators experienced in law enforcement, who shall be trained in forensic medical examination, and other technical personnel. He may enter into contracts and agreements with any hospital, laboratory, governmental institution or medical facility for medical services required in furtherance of his duties."

Section 11: "The medical examiner shall have power to investigate the cause of violent and casual deaths where the body of any person coming to death shall be discovered in the county, shall perform or cause to be performed autopsies allowed by law, and may investigate any condition that may be deleterious to public health and to the environment in the county, and shall perform all duties and functions prescribed by law for coroners except as otherwise provided in this charter or by ordinance, and make examinations as to any matter within his jurisdiction."

Section 12: "Whenever in the opinion of the medical examiner, after a full investigation of the circumstances and causes of death, or of the deleterious condition of health or the environment in the county, there is reasonable suspicion of a violation of the criminal or civil law of the state, or ordinance of the county, a full copy of all evidence and opinion of the investigating examiner shall be promptly filed with the prosecuting attorney or county counselor and the law enforcement office of each jurisdiction affected."

Section 13: "The medical examiner and assistants shall have power to administer oaths and affirmations, take affidavits, but shall not be required to summon a jury of inquisition."

Section 14: "The prosecuting attorney and all in-

The Annual Report of the Health Care Foundation of Missouri was presented to the House of Delegates by MSMA Past-President Hector W. Benoit, Jr., of Kansas City, Chairman of the HCFM and a Delegate to the AMA.

terested and affected officers and employees of the county shall cooperate fully with and assist the medical examiner in the performance of his duties."

In the opinion of the Ad Hoc Committee, both these pieces of legislation serve as excellent pilot medical examiner acts affecting the two most populace areas in the state.

It is the further opinion of the Committee that adoption of medical examiner systems can probably only be accomplished by counties, or regions, of the state in view of the failure of this type of legislation even when repeatedly introduced over the past 20 years.

This will allow concerned physicians in the various counties and regions of Missouri to stimulate adoption of plans similar to those approved for Kansas City and St. Louis.

WILLIAM R. MCPHEE, Chairman
NED B. CHASE, JR.
LEE T. FORD, JR.

(Referred to Reference Committee on Constitution and Bylaws.)

REPORT OF THE COMMISSION ON INTERSPECIALTY MEDICINE

Research and Committee activities were performed during the past year by the Commission on Interspecialty Medicine principally under the following two headings and recommendations to the Council were made by the Chairman at the Council Meeting at the Lodge of the Four Seasons, Lake Ozark, Mo. on Dec. 11-12, 1971.

HEALTH CARE FOR THE POOR

The Commission recommended to the Council implementation of a health-care-for-the-poor program in Missouri as outlined in the AMA's short term goals (#1 through #6), which follows this report.

PHYSICIANS' ASSISTANTS

It has been recommended to the Council that the statewide survey described on pages 673, 674 and 675 of the September, 1971 issue of MISSOURI MEDICINE has established that a demand exists for Physicians' Assistants among the private practitioners of medicine in the state of Missouri and that establishment of a training program or programs is justified.

The Commission on Interspecialty Medicine also recommended that the MSMA not support attempts to fix the rule and functions of the Physician's Assistant legally by licensure, but that Physicians' Assistants be certified upon satisfactory completion of an approved training program and function only under responsibility and authority of a licensed physician who would then define the role of Physician Assistant and assume responsibility for his acts.

It was recommended that mechanisms for deployment of Physicians' Assistants to areas most in need of additional health manpower be devised and that the obvious advantages of the preceptorship component of the training program be used to the maximum extent possible in this connection.

It was recommended to the Council that clarification be sought of the position of malpractice underwriters of the cost increases for malpractice insurance to be anticipated by the physicians employing Physicians' Assistants from an approved training program.

Finally, it was recommended also that establishment of minimal standards for approval of training programs be left to the planning presently underway by the AMA where standardization is likely to ensue on a national level.

CYRIL J. COSTELLO, Chairman
JAMES W. WILLOUGHBY
G. W. N. EGGERS, JR.
ROBERT M. HAZEN
R. STACY LONG
ROBERT S. MOSSER
HERBERT E. ROSENBAUM
TREVOR F. WATSON
TRUMAN B. SCHERTZ
RICHARD E. LORD
RICHARD D. BLIM
EDMUND V. COWDRY, JR.
EDWIN D. WOLFGRAM
JOSEPH C. PEDEN, JR.
C. LAURENCE JOHNSON
GEORGE L. HAWKINS
JOSEPH B. GRINDON
THOMAS B. FERGUSON
WILLIAM STONEMAN, III
OMER E. HAGEBUSCH
MARK D. EAGLETON
LESTER E. WOLCOTT

(Referred to Reference Committee on Miscellaneous Affairs.)

AMA COMMITTEE ON HEALTH CARE OF THE POOR WORK PROGRAM

PREFACE

The Committee on Health Care of the Poor recognizes that improving health care for the poor is but one of the many needs of the poor. Health problems of the poor are concomitant with other socioeconomic issues, such as poor housing, malnutrition, unemployment and insufficient education. Economic needs transcend all other needs and are considered the most important need as viewed by the poor. Because of the multiple problems existing in poor communities, the health problems for the poor are often more severe than in other areas and restoration to normal health is made more difficult. For the poor, the basic requirements of life—food, clothing and shelter—as well as health care, are often inadequate, unavailable, inaccessible and unacceptable. Efforts directed toward improvement of the overall quality of life for all people can be the only answer, as efforts in health care alone will not be enough.

The Committee strongly feels that their greatest contribution towards improving the quality of life can be made by working to provide equitable health services acceptable to the poor. The Committee has developed a work program including goals and activities. Some of these activities can be implemented and completed in a relatively short period, while others will be long-range in nature and somewhat dependent on the success of the Committee's earlier work. Many of these activities will be ongoing and will be subject to revision as needs dictate.

SHORT-TERM GOALS (TO BE FULLY IMPLEMENTED BY END OF 1972)

1. Encourage the establishment of Committees on Health Care of the Poor by state and local medical societies.—(Dr. Scrivner)
   a. By written communication to the state and local levels.
   b. By assistance from the Division of Public Affairs and its Department of Field Services.
2. Develop appropriate health education materials and programs for wide distribution using all available media.—(Drs. Butterworth, Huggins, and Ramirez)
   a. Stimulate development and assist in preparing pamphlets in conjunction with other AMA departments and committees.
   b. Stimulate development and assist in preparing television and radio spot announcements.
   c. Develop materials for publication periodically in newspapers and magazines.
3. Participate in conferences concerning health care of the poor.—(Dr. Burkhart and Mr. Levy)
   a. Sponsor joint-conferences in conjunction with other AMA councils and committees or sponsor separate conferences.
   b. Seek speaking engagements and participate in conferences sponsored by medical societies or other concerned groups.
4. Establish and maintain an informational center concerning programs designed to meet the health needs of the poor.—(Staff)
5. Establish and maintain liaison with other AMA councils and committees concerned with the poor.—(Staff)
6. Hold periodic CHCOP meetings in urban and rural poor areas to see the needs, share concern, and participate in problem solving.—(Committee)

THE COUNCIL

The Speaker stated that the portions of the reports of Council Meetings which are referred to Reference Committees are preceded by a black square (■) and are concluded with the committee assignment, which is set in bold face type.

Meeting of April 18, 1971

■ Gerald L. Miller, M.D., Kansas City, President, called the meeting to order. Those attending were Drs. Miller; Joseph L. Fisher, St. Joseph; Walter T. Gunn, St. Louis; John I. Matthews, Jefferson City; Charles R. Gulick, St. Louis; John N. Martin, St. Joseph; Max S. Franklin, St. Louis; Louis P. Hetlage, Troy; James C. Cope, Columbia; William D. Bradshaw, Clinton; R. Allen Chandler, Kansas City; Howard J. McAlhany, Springfield; E. A. Stricker, St. James; Eugene T. Hansbrough, Poplar Bluff; Messrs. John W. Noble, Kennett; Hollister S. Smith, St. Louis; Ray McIntyre, Bob Carroll and Royal O. Cooper, Staff, Jefferson City.

Doctor Miller opened the meeting by introducing and welcoming the new Councilors, who are Dr. Max S. Franklin, Third Councilor District, and Dr. Louis P. Hetlage, Fourth Councilor District. Congratulations also were extended to Councilors from the Second, Sixth, Eighth and Tenth Districts who were reelected.

Dr. E. A. Stricker was nominated and elected Chairman of the Council by unanimous vote and, thereby, became the presiding officer. He thanked the Council for the honor of chairmanship and asked for their support and assistance during the coming year.

Dr. James C. Cope was nominated and unanimously elected Vice-Chairman of the Council. Dr. Charles R. Gulick was nominated and unanimously elected Treasurer and Dr. John I. Matthews was nominated and elected Secretary by acclamation.

Doctor Cope then asked for Council consideration of the following recommendations:

1. *Committee Reports:*
   All reports shall first go to the state office in writing. The Chairman shall publish the report in summary to the members of the Council prior to the meeting at which the report is to be considered. Committee Chairman shall appear before the Council only at the request of the Chairman of the Council or the Chairman of the Commission or Committee.
2. *Report of AMA Delegates:*
   The Senior Delegate or his designee shall report to the Council at least twice yearly or more often as the Chairman may direct.
3. *Executive Sessions:*
   At the end of each working session of the Council, such as the customary Saturday morning session, the Saturday afternoon session and the Sunday morning session, the Council will go into Executive Session.
4. *Voting:*
   Any item that did not appear on the agenda will be acted upon during the Executive Session next after the introduction of the item.

Discussion followed regarding the above four recommendations and it was suggested that perhaps staff should send a letter to all Commission and Committee Chairmen regarding Recommendation No. 1, so they will understand that their reports must be abstracted and sent to the Council prior to their appearing before the Council. After further discussion, on motion of Doctor Bradshaw, duly seconded, the Council adopted all four of the above recommendations.

NEXT COUNCIL MEETING

The next meeting of the Council will be held on June 5-6, 1971 at the Ramada Inn, Jefferson City beginning at 9:00 AM. On motion of Doctor Martin, duly seconded, it was agreed that the Council dispense with the Sunday noon luncheon following the Council meeting. Suggestions also were made regarding the length of the noon meal on Saturday. It was suggested that a buffet on Saturday would not be as time-consuming.

Doctor Bradshaw indicated that after hearing some of the discussion in Reference Committees, he felt that professional liaison was not what it should be and that somehow a better system of disseminating information needs to be developed.

Doctor Chandler stated that unfortunately items that are sent in written form are not always read and many things appearing in the Journal are not read as closely as they should be. He suggested that perhaps some type of task force or speakers' bureau should be formed to discuss matters of great importance with physician groups, individual physicians, etc., so they will be informed.

Doctor Matthews indicated that Councilor District meetings are being held, but many times are not as well attended as we want them to be. He supported Doctor Chandler's idea of having a team who would attend hospital staff meetings, etc. to disseminate important information to them.

Doctor Miller indicated that lack of communication is a problem which exists in all areas and not specifically with the Foundation and urged that the Council take some action regarding getting information to the members of the Association. He suggested that a committee be appointed to study this communication problem, to explore all modalities and to bring back to the Council possible solutions to the problem.

Doctor Hansbrough stated that he felt the communications problem is the responsibility of the Councilors in their particular areas, realizing that the problems would vary between the rural and metropolitan areas.

Doctor Gunn pointed out that matters of significant importance are published in his local Society Bulletin. However, many times these bulletins are not read. He further stated that there are 33 hospitals in metropolitan St. Louis and did not feel it would be feasible to attend all staff meetings.

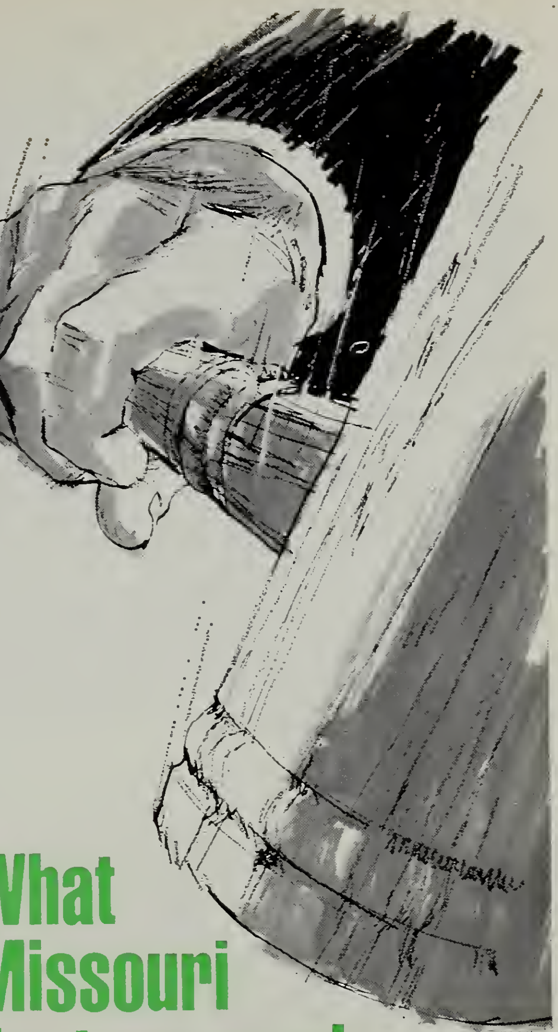
Doctor Cope suggested that when a matter arises which should be disseminated to the membership, that audio-visual aids be made available for the Councilor's use in getting the information to physicians in his particular district. He stated that perhaps in the metropolitan areas the Councilors would need to recruit several other physicians to assist them. He suggested establishing such a department in our state office to draw up audio-visual aids to help in professional relations. He further stated that this is a problem that should be studied in depth.

Doctor Bradshaw moved for the appointment of a committee of the Council to do an in-depth study regarding communications and for a report back to the Council. Motion was duly seconded and carried. The Chairman appointed the following Councilors to this committee: Drs. Max S. Franklin, Chairman; James C. Cope; Howard J. McAlhany and E. T. Hansbrough.

Several of the Councilors indicated that they felt their district physicians were well informed regarding the Foundation, but also felt there was a need for a study concerning professional communication.

Doctor Hetlage stated that in view of the excellent job done by the Reference Committee on Resolutions, he felt a letter expressing our appreciation was in order. It was agreed that the staff should send a letter to this effect to the Reference Committee.

Mr. Hollister Smith indicated that he is having a meet-



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ing of Medical Society Executive Secretaries and has invited Executive Secretaries from nine surrounding states. This meeting will be held at the St. Louis Medical Society office on May 1 from 10 AM to 3:30 PM. Items of mutual interest will be discussed, such as Comprehensive Health Planning, Regional Medical Programs, etc. The Chairman asked Mr. Smith if he would give a brief report of this meeting to the Council at their June meeting.

Doctor Cope indicated that he felt the Woman's Auxiliary did an excellent job on their booth display at the Annual Session and suggested that a letter of commendation be sent to Mrs. M. T. Metzgar and Mrs. William M. Walker regarding Booth #19. It was agreed that a letter be sent to them commending them for their fine display.

Doctor Miller indicated that he would like to acknowledge that officers, councilors and staff are extremely aware of the many problems facing medicine and indicated to the Chairman of the Council that he would receive their wholehearted support.

Doctor Fisher thanked the officers, councilors and staff for their help and support and indicated that he felt the Council would have to seriously consider enlarging the staff in view of the annual sessions of the Legislature.

The meeting adjourned at 10:20 AM.—Referred to Reports of Officers Committee.]

Meeting of June 5-6, 1971

■ E. A. Stricker, M.D., St. James, Chairman, called the meeting to order. Those present were Drs. Stricker; John N. Martin, St. Joseph; Lysle M. Bach, Hannibal; Max S. Franklin, St. Louis; Louis P. Hetlage, Troy; James C. Cope, Columbia; William D. Bradshaw, Clinton; R. Allen Chandler, Kansas City; Howard J. McAlhany, Springfield; Eugene T. Hansbrough, Poplar Bluff; Gerald L. Miller, Kansas City; Walter T. Gunn, St. Louis; John I. Matthews, Jefferson City; Joseph L. Fisher, St. Joseph; Stanley S. Peterson, Springfield; J. Loren Washburn, Versailles; Hector W. Benoit, Jr., Kansas City; Arthur W. Neilson, St. Louis; Robert W. Kelley, St. Louis; William D. Mayer and William C. Allen, Columbia; Herbert R. Domke, Jefferson City; Messrs. John W. Noble, Kennett; Hollister Smith, St. Louis; Gary L. Schnedler, Springfield; Allen D. Smith, Kansas City; Ray McIntyre, Tom P. Fox, Bob Carroll and Royal O. Cooper, Jefferson City, Staff.

The Chairman requested approval of the minutes of the last two meetings of the Council on April 14 and April 18, 1971. On motion of Dr. Franklin, duly seconded, the minutes were approved as distributed.

REPORT OF THE SECRETARY

Mr. McIntyre reported on a number of interesting meetings which he attended recently. He stated that on May 1, he attended a mid-states area conference of Executive Secretaries of state and larger county medical societies at St. Louis Medical Society headquarters. The representatives from nine states who attended brought together a number of people with similar problems. On May 5-6, he attended the annual meeting of SAMA (Student American Medical Association) at the Chase Hotel in St. Louis and stated that it was revealing to hear some of the comments made by some of our young physicians-to-be. He said Dr. Paul Young of Kansas City also attended this meeting.

Mr. McIntyre reported that on May 14, he, Bob Carroll and Royal O. Cooper attended a dinner at the St. Louis Medical Society for Representatives and Senators in the Missouri Legislature, and their wives from the St. Louis area. They were invited for an informal get-together which gave the physicians another opportunity to become better acquainted with their legislators. He reported that other county medical societies in the state also have done this. On June 2, he attended the annual meeting of the Licensed Practical Nurses Association at Tan-Tar-A. All of the practical nurses in the state who are in training were invited to attend this meeting. All were in uniform, had a Grand March, were introduced and were given a sales talk on what the practical nurses association is doing. He said he was quite impressed with this type of program and was sure it would help in getting these future nurses to become members of that organization. One entire day was devoted to them, and it was his thought this idea could be used in organized medicine. He presented figures on the recent MSMA Annual Session and stated that only 617 members were registered and that we need to introduce ideas to improve the attendance.

He requested that Mr. Cooper comment on the survey of all members of the Association which is being conducted by the Commission on Medical-Legal Affairs. Mr. Cooper stated that the response has been very good, that approximately 1,900 replies have been received to date and that we should receive at least a 50% return. He said a number of interesting comments were received, some on malpractice and some on pre-trial screening panels.

Mr. McIntyre called attention to a letter from the Missouri Regional Medical Program. He explained that MRMP has a Liaison Committee made up of representatives of various organizations interested in health care in Missouri, the purpose of which is to review the needs and projects that are proposed to MRMP and make recommendations to them. He stated that MSMA has been a member of this committee for some time and that Dr. Byron M. Stuart has been our representative. The letter suggested that each member-organization appoint an alternate with the right to vote to take the place of the delegate in his absence. Mr. McIntyre indicated that an alternate has never been appointed, but that Bob Carroll has attended all of these meetings. He suggested also that Dr. Stuart have the official vote and in the absence of Dr. Stuart, that Bob Carroll have the right to vote. He requested Council-approval to send an official letter appointing Bob Carroll as the alternate in this regard.

Dr. Hansbrough moved that a letter be written to MRMP appointing Bob Carroll as official representative with voting privileges in the absence of Dr. Stuart. (No action was taken at this time. This item was held for action at the Summary Session held immediately following the morning business session.)

APPOINTMENT OF COUNCILOR ADVISORS TO COMMISSIONS

Mr. McIntyre indicated that the By-Laws state, "The Chairman of the Council shall appoint each year an appropriate Councilor to serve as advisor to each respective Commission." The following Councilors were appointed by Dr. Stricker, Chairman of the Council, for the year 1971-1972: Dr. Hetlage for the Commission on Medical Economics, Third Party Medicine and Governmental Relations; Dr. Hansbrough for the Commission on Continuing Education and Health Manpower; Dr. McAlhany for the Commission on Medical-Legal Affairs; Dr. Martin for the Commission on Interspecialty Medicine; and Dr. Bradshaw for the Commission on Public Affairs.

TREASURER'S REPORT

Dr. Franklin presented the Treasurer's Report in the absence of Dr. Gulick. He presented specific figures, but stated that the financial picture was not complete because of outstanding bills for the Annual Session. He also indicated that the raise in postage rates and other increased costs will affect the Budget. However, with the income from dues collected, MSMA is in good financial condition. On motion of Dr. Bradshaw, duly seconded, the Treasurer's Report was accepted.

APPOINTMENT OF FINANCE COMMITTEE

The Chairman appointed the following members to the Finance Committee for 1971: Drs. Charles R. Gulick, St. Louis, Chairman; Gerald L. Miller, Kansas City; and Howard J. McAlhany, Springfield.—**Referred to Reports of Officers Committee.]**

INTRODUCTION OF DIRECTOR, MISSOURI DIVISION OF HEALTH

■ The Chairman asked Dr. Bradshaw to introduce Dr. Herbert R. Domke, the new Director of the Division of Health of Missouri. Dr. Domke was welcomed by the Council and gave a short report on some of the problems confronting the Division of Health, primarily in the area of health manpower over the state. He said the Division of Health is promoting meetings to study the matter of providing more physicians for Missouri, a priority program. He stated that the Olson report had not been brought up to date, but that a committee is working toward developing a program to keep it on a current basis. He said that the State Board of Healing Arts had sent out a second card, along with the biennial registration card, which calls for simple information, such as, whether or not a physician is practicing, retired, in training or expects to practice in Missouri. He said the cards are to be returned to the State Board and it is hoped that they will provide accurate information. He stated he hopes to establish a unit within the Division of Health devoted to Health Manpower and indicated it would be desirable to coordinate efforts to retain the already well-developed programs of MSMA and the Osteopathic Association for physician placement. He stated that the needs are obvious and, in time, he would like to present a proposal to develop a coordinating Committee of MSMA, Osteopathic Association, Division of Health and, possibly, the Medical Schools in order to do everything they can to develop an overall program on physician placement. He expressed the hope that the Council would endorse his proposal.

The Chairman thanked Dr. Domke for his suggestions and action was deferred until the meeting of the Summary Session.—**Referred to Medical Education and Public Welfare Committee.**

REPORT OF LEGAL COUNCIL

■ Mr. Noble gave a brief report on two matters that are pending. One is the Curteman case which is in the Supreme Court where a hearing may be held soon; the other is in regard to a tax matter with IRS. On the latter, a preliminary district conference was held with no decisions. The matter now will be discussed in Appellate Conference in Kansas City on June 10. After further discussion, on motion of Dr. Hetlage, duly seconded, the report of Legal Counsel was approved.

MATTERS REFERRED TO THE COUNCIL BY THE 1971 HOUSE OF DELEGATES

At the 1971 House of Delegates, a number of items were referred to the Council for further action or implementation. Following is a report of the Council Action on these matters:

The House referred the *report of the Ad Hoc Blue Shield Committee* back to the Council with a recommendation that a new Ad Hoc Committee be appointed to continue the consideration of the realistic merits and problems in the Kansas City Blue Shield and Missouri Medical Service of St. Louis to consider further recommendation of the present committees, in conjunction with representatives of the two Blue Shield plans, all with the interest of improving benefits to subscribers and rapport with physicians. This was referred to the Commission on Medical Economics.

Resolution No. 13, entitled "Method of Reimbursement to Hospitals by Blue Cross," was referred to the Council for study of the questions raised in the resolution and additional investigation as to the method of Blue Cross reimbursement. This was referred to the Commission on Medical Economics.

Resolution No. 20, entitled "Outpatient Medicare Coverage of Patients With Emotional Problems," was sent to the Council for referral to the appropriate commission for further study and recommendations. This was referred to the Commission on Medical Economics.

Resolution No. 33, entitled "Restrictions on the Use of Stimulant Drugs," called for the resolution to be sent to all members of the MSMA in the form of an accompanying pledge which each member be asked to sign and return as evidence of their participation and good faith in the resolution. After discussion, on motion, duly seconded, it was agreed this pledge be printed as part of the Journal to be signed and returned to the MSMA office.—**Referred to Reports of Officers Committee.]**

■ *Resolution No. 36,* entitled "Introduction of Resolutions," was not adopted by the House, but the House recommended that it be referred by the Council to an appropriate committee for possible implementation at the next Annual Session. This was referred to the standing Committee on Constitution and By-Laws.

Resolution No. 16, which seeks to provide for a general referendum of Association members upon any question pending before the House of Delegates was not adopted, but was referred to the standing Committee on Constitution and By-Laws to study with the conclusion that the matter may again be brought before the House at next year's Annual Session. This was referred to Constitution and By-Laws.

The House also called for a study concerning the need for a student membership classification. This also was referred to the standing Committee on Constitution and By-Laws with a recommendation from the Council that student membership may be included under the Associate Membership classification in the MSMA By-Laws.—**Referred to Constitution and Bylaws Committee.]**

■ The House rejected *Resolution No. 35,* which opposed Health Maintenance Organizations to the exclusion of other delivery systems, but the House voted in favor of an active and educational program to disseminate all available information on HMO's and other health care systems to the medical profession and to the public. This was referred to the Commission on Public Affairs.

The House adopted *Resolution No. 6* which calls for the Association's Medical-Legal Affairs Commission and Legislative Committee to be instructed to design and seek sponsors for a pilot medical examiner act in Missouri.

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1. Latiolais, C. J., and Berry, C. C.: Misuse of Prescription Medications by Outpatients, *Drug Intelligence & Clin. Pharm.* 3:270-7, 1969.

TEST	HYPOTHYROID	SYNTHROID THERAPEUTIC NORMAL
P.B.I.	Less than 4 mcg %	6-10 mcg %
T_4 By Column	Less than 3 mcg %	7-9 mcg %
T_3 (Resin)	Less than 25%	27-35%
T_3 (Red Cell)	Less than 11%	11.5-18%
Free Thyroxine	Less than 0.7 nanograms %	0.7-2.5 nanograms %
Murphy-Pattee	Less than 2.9 mcg %	4-11 mcg %

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CYTOMEL (Sodium liothyronine) Synthetic T_3	EUTHROID** (Liotrix) Synthetic T_3-T_4	THYROLAR*** (Liotrix) Synthetic T_3-T_4	Desiccated (Thyroid, USP) Cow, sheep or hog thyroid	PROLOID (thyroglobulin) Frozen hog thyroid	SYNTHROID (Sodium levothyroxine) Synthetic T_4
Unscored 5 mcg.	N.A.	N.A.	unscored ¼ gr.	¼ gr.	0.025 mg.
N.A.	½	½	unscored ½ gr.	½ gr.	0.05 mg.
25 mcg.	1	1	unscored 1 gr.	1 gr.	0.1 mg.
N.A.	N.A.	N.A.	N.A.	1½ gr.	0.15 mg.
50 mcg.	2	2	unscored 2 gr.	2 gr.	0.2 mg.
N.A.	3	3	unscored 3 gr.	3 gr.	0.3 mg.
N.A.	N.A.	N.A.	unscored 5 gr.	5 gr.	0.5 mg.
N.A.	N.A.	N.A.	N.A.	N.A.	Injectable 500 mcg.

N.A. = Not Available Commercially

*Equivalents shown are chemical, and do not take into consideration individual patient variables. Clinical effect is approximate and should be monitored when converting a patient to SYNTHROID. This is particularly important in patients previously on desiccated thyroid. In these patients, lower doses of SYNTHROID may produce the same metabolic effect.

**Euthroid (#1 tablet) contains 60 mcg. of T_4 and 15 mcg. of T_3.

***Thyrolar (#1 tablet) contains 50 mcg. of T_4 and 12.5 mcg. of T_3.

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Precautions: As with other thyroid preparations, an overdosage may cause diarrhea or cramps, nervousness, tremors, tachycardia, vomiting and continued weight loss. These effects may begin after four or five days or may not become apparent for one to three weeks. Patients receiving the drug should be observed closely for signs of thyrotoxicosis. If indications of overdosage appear, discontinue medication for 2-6 days, then resume at a lower dosage level. In patients with diabetes mellitus, careful observations should be made for changes in insulin or other antidiabetic drug dosage requirements. If hypothyroidism is accompanied by adrenal insufficiency, as Addison's Disease (chronic subcortical insufficiency), Simmonds's Disease (panhypopituitarism) or Cushing's syndrome (hyperadrenalism), these dysfunctions must be corrected prior to and during SYNTHROID (sodium levothyroxine) administration. The drug should be administered with caution to patients with cardiovascular disease; development of chest pains or other aggravations of cardiovascular disease requires a reduction in dosage.

Contraindications: Thyrotoxicosis, acute myocardial infarction. **Side effects:** The effects of SYNTHROID (sodium levothyroxine) therapy are slow in being manifested. Side effects, when they do occur, are secondary to increased rates of body metabolism; sweating, heart palpitations with or without pain, leg cramps, and weight loss. Diarrhea, vomiting, and nervousness have also been observed. Myxedematous patients with heart disease have died from abrupt increases in dosage of thyroid drugs. Careful observation of the patient during the beginning of any thyroid therapy will alert the physician to any untoward effects.

In most cases with side effects, a reduction of dosage followed by a more gradual adjustment upward will result in a more accurate indication of the patient's dosage requirements without the appearance of side effects.

Dosage and Administration: The activity of a 0.1 mg. SYNTHROID (sodium levothyroxine) TABLET is equivalent to approximately one grain thyroid, U.S.P. Administer SYNTHROID tablets as a single daily dose, preferably after breakfast. In hypothyroidism without myxedema, the usual initial adult dose is 0.1 mg. daily, and may be increased by 0.1 mg. every 30 days until proper metabolic balance is attained. Clinical evaluation should be made monthly and PBI measurements about every 90 days. Final maintenance dosage will usually range from 0.2-0.4 mg. daily. In adult myxedema, starting dose should be 0.025 mg. daily. The dose may be increased to 0.05 mg. after two weeks and to 0.1 mg. at the end of a second two weeks. The daily dose may be further increased at two-month intervals by 0.1 mg. until the optimum maintenance dose is reached (0.1-1.0 mg. daily).

Supplied: Tablets: 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and color-coded, in bottles of 100, 500, and 1000. Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, N.F., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent. SYNTHROID (sodium levothyroxine) **for Injection** may be administered intravenously utilizing 200-400 mcg. of a solution containing 100 mcg. per ml. If significant improvement is not shown the following day, a repeat injection of 100-200 mcg. may be given.

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Resolution No. 1, which calls for support of SB 9 and HB 301 regarding county hospital boards and staff, was adopted by the House. It was reported by Mr. Carroll that the bills have been actively supported. HB 301 has been passed.

The House adopted *Resolution No. 12,* which calls for support of HB 238 concerning blood alcohol levels to determine drunken drivers. Mr. Carroll reported the bill has been supported but is dead for this session.

The House adopted *Resolution No. 25* which called for a change in Missouri law to allow licensed practical nurses who meet the qualifications of their local hospital staffs be permitted to administer fluids intravenously under the staff doctors supervision and orders. This was referred to the Legislative Committee.

Resolution No. 5, which calls for legislation to provide immunity for physicians in peer review capacity, was adopted by the House and referred to the Legislative Committee.

The House adopted a *supplemental report on "Alcoholism and Drug Abuse Education"* which resolved that MSMA urge insurance companies in the state to offer more coverage in their policies for the illnesses of alcoholism and drug abuse, that larger corporations set up alcoholism and drug abuse programs and that general hospitals accept alcoholics as they would anyone with another disease. This was referred to the Commission on Public Affairs.—**Referred to Miscellaneous Affairs Committee.]**

■ *Resolution No. 3* was adopted by the House. This resolution, entitled "Retention of Private Health Care System," was referred to the Commission on Medical Economics, Third Party Medicine and Governmental Relations.

Resolution No. 7, entitled "Blue Shield of Kansas City," was adopted by the House with the recommendation that MSMA commend Blue Shield of Kansas City for its national leadership in developing and implementing a broad comprehensive benefit plan for both group and nongroup subscribers. After discussion, on motion of Dr. Fisher, duly seconded, it was agreed to forward this information to Kansas City Blue Shield and not have it referred to a Committee or Commission.

Resolution No. 14, entitled "Subscriber Representation on Blue Shield Boards," was adopted by the House. The Council referred this resolution to the Commission on Medical Economics.—**Referred to Resolution Committee.]**

■ The House adopted *Resolution No. 24,* entitled "Labeling of Prescription Drugs." This was referred to the Commission on Public Affairs.

Resolution No. 32 concerning Emergency Medical Service was adopted by the House and calls for MSMA to support SB 238 calling for the licensing of ambulance service and personnel in Missouri and that members of MSMA are to work with their local ambulance service to insure they meet the proper standards. This was referred by the Council to the Commission on Public Affairs and Legislative Committee.—**Referred to Miscellaneous Affairs Committee.]**

PRESIDENT'S REPORT

■ Dr. Miller stated that the MSMA is supporting Richard A. Sutter, M.D., St. Louis, for appointment to either the National Advisory Committee on Occupational Safety and Health or the National Commission on State Workmen's Compensation Laws. This appointment is made by the President of the United States. Dr. Miller stated that a letter of recommendation was sent to President Nixon on May 26, 1971 over his signature.

Dr. Miller reported that he and members of the staff attended a meeting in Las Vegas where Foundations and Peer Review were discussed.

He said much was learned from the San Joaquin County (California) regarding their Foundation which was the first to be established. He said it was a most informative session.

He reported on his attendance at the Illinois State Medical Society annual meeting and said, for the first time, ISMS held its meeting outside of the Chicago area. He mentioned that next year the Illinois State Society will involve the Chicago Medical Society in its Annual Session and will return to Chicago for the 1972 meeting.

He said that the Illinois Society was disturbed at the number of resolutions being presented from the floor of the House and which took up too much time and made it difficult for the Reference Committees in their deliberations. They proposed a step similar to what MSMA proposes, i.e., to set a time for all resolutions to be presented. They also made preparation to involve students in their deliberations and considerations in the House of Delegates. Dr. Miller said that on the last day, the president of SAMA addressed the House. He also mentioned that Illinois plans to have a Foundation based on the San Joaquin plan. He stated the ASIM (American Society of Internal Medicine) helped to contribute to the program of the Illinois State Medical Society.

He said that he attended a Peer Review meeting which followed the Illinois State meeting in Chicago and spent a day and a half in a most informative session.

Dr. Miller then referred to action taken last May at the Council meeting regarding procedural medical terminology and the steps that would eventually have to be taken. He said we must now reconsider the matter of replacing the four digit system with the five digit system and this should be done now. We must consider the code method adopted by the *AMA Current Medical Terminology and Current Procedural Terminology.* He stated that we must accept this responsibility and, perhaps, ask the medical schools to participate in this educational effort to make this step forward and establish a uniform medical and procedural terminology policy.—**Referred to Reports of Officers Committee.]**

COMPREHENSIVE HEALTH PLANNING

■ Dr. Robert Kelley, Chairman of the Governor's Advisory Council on Comprehensive Health Planning, gave a brief report on developments concerning CHP in Missouri. He spoke about several area planning agencies that need support. He said that the Northeast Missouri area Health Planning Agency is having problems. He said there are no M.D.'s involved and this is unfortunate, since they have been funded and it would be extremely unfortunate if this agency died. He urged the Councilor of that District to try to get an M.D. involved in this important work and stated the State Advisory Council would be happy to cooperate with him.

He said that the Lake Area centered around Springfield seems to be working very well. However, he appealed for more M.D. involvement in the Bootheel Area. This area has not as yet been funded, but is working on

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Dr. Kelley reported that CHP is planning three conferences to provide information on Health Maintenance Organizations to be held this summer in Springfield, Kansas City and St. Louis. They will be funded through CHP. He stated they would like the MSMA to be a co-sponsor of these meetings. The other sponsors are the Osteopathic Association, Nurses Association, Hospital Association, other organized medical groups and the funded CHP agencies, Lakes, Mid-America and ARCH in St. Louis. He stated the only organizations that have not indicated their sponsorship are the MSMA and the State Dental Association. Dr. Kelley urged the Council to co-sponsor these meetings, stating that to co-sponsor does not mean that HMO is the answer to the health care problems of the people. However, he said it would be extremely desirable to have a number of practicing physicians available to take part in the conferences from the standpoint of the practicing physician. These conferences would be for both providers and consumers, but primarily for providers.

The Chairman thanked Dr. Kelley for his report and stated that the Council would discuss this in the Summary Session.

HEALTH CARE FOUNDATION

Dr. Benoit, Chairman of the Health Care Foundation, reported that the Board of Directors, Central Coordinating Committee and the Regional Panel Chairmen of the Foundation met on Friday afternoon, June 4, at the Ramada Inn in Jefferson City. After a general discussion of problems and methodology, the Central Coordinating Committee and the Regional Panel Chairmen met to study and develop guidelines that could be used by the review panels and third party carriers.

Dr. Benoit requested that Dr. Matthews give the Treasurer's report. Dr. Matthews reported the total income to date was $3,600, based on the charge formula adopted by the Board. He said the overall expenses for the Foundation have been $10,000 to date. He pointed out that income must be increased. It was suggested that a cost plus formula be adopted. The Board agreed with this concept.

Dr. Benoit reported that Dr. Matthews and Dr. Michaels were invited to attend the next meeting of the State Board of Healing Arts at which time two ex-officio members of the Judicial Committee would be appointed. He also reported on the National Peer Review Workshop in Chicago recently. Several ideas were expressed including the maintenance of anonymity in peer review cases and the inclusion of "consumers" in the peer review mechanism. The Board will consider this eventually.

Dr. Benoit reported that the Central Coordinating Committee presented a transmittal form to be used for review committee information which was unanimously adopted. He reviewed the contents of the form for the Councilors.

Dr. Benoit stated that a copy of the Hennepin County Guidelines had been studied and it was agreed that these guidelines be sent to the state specialty societies with the request to review the guidelines and suggest any modifications. It also was agreed that these guidelines be sent to the Regional Review Panels for their use.

Discussion followed Dr. Benoit's report. Dr. Hetlage requested a copy of the Hennepin County Guidelines when they are available. It was pointed out that the cost prohibit all the Councilors receiving these guidelines, but it was suggested that a copy of the *AMA Peer Review Manual*, which is available at $4.00 per copy, would be better for the Council.

Dr. Benoit also reported that the Kansas City Blue Shield has requested the Foundation to participate in their Annual Seminar to be held on July 19.

After discussion, on motion of Dr. Fisher, duly seconded, the Council accepted the report of the Health Care Foundation as educational and informational.—**Referred to Resolutions Committee.]**

Summary Session
Saturday, June 5, 11:30 AM

■ The Council held a summary session with only the Council and Officers present to discuss and take action regarding several items not included on the agenda.

The Council agreed that Dr. Byron Stuart of Boonville is the official representative of the MSMA to the MRMP Liaison Committee meetings and that Bob Carroll of the MSMA staff, who attends the Liaison Committee meeting with Dr. Stuart, be authorized to cast the Association's vote in the absence of Dr. Stuart.

The Council approved the formation of a joint Coordinating Committee to include the Division of Health, Missouri State Medical Association, Missouri Osteopathic Association and the Medical Schools concerned with physician placement.—**Referred to Medical Education and Public Welfare Committee.]**

■ The Council voted that MSMA be a co-sponsor of the regional conferences to be developed by the Missouri Comprehensive Health Planning Agency to inform physicians and others about Health Maintenance Organizations (HMO). This co-sponsorship is for the purpose of making information concerning HMO's available and in no way constitutes an endorsement of HMO's by the Missouri State Medical Association. A letter stating the Council's position and action taken on this matter will be sent to Dr. Kelley.—**Referred to Resolutions Committee.]**

Council Minutes (Continued)

REPORT OF THE DEAN
UNIVERSITY OF MISSOURI-COLUMBIA

■ Dr. William Mayer, Dean, University of Missouri School of Medicine, Columbia. discussed the financial needs of the Medical School. He indicated that about one eighth of the total University budget ends up in the Medical Center.

Dr. Mayer then spoke on the issue of out-of-state students at the Medical School. He stated that he felt they have an obligation to take some out-of-state students, since there are Missouri residents going to other state schools. He indicated that last year, 11 Missouri residents started in state schools outside of the state of Missouri. He stated that for the coming year, ten out of approximately 800 out-of-state applicants have been accepted to the Medical School and 90 Missourians out of approximately 380 applicants.

Dr. Miller asked Dr. Mayer to give the Council some insight into the current review methodology on admissions policy. Dr. Mayer stated that it is most important that they try to keep any type of political pressure out of the process and indicated that in the ten years he has been at the Medical School, at no time has the University authorized its approval for admission to other than true, bona fide students. Dr. Mayer stated that the Medical School currently has a 13-man Admissions Committee.

In addition to full time positions, these individuals spend an average of seven hours per week, starting in September and going through March, working on the Admissions Committee. This 13-man Admissions Committee consists of one Assistant Dean, ten faculty members and two students. In addition to the student's undergraduate grade point average, the Admissions Committee reviews letters from their faculty, letters from individuals who have known them throughout the state. Each Missouri applicant to the School of Medicine is interviewed.

Dr. Mayer indicated that private physicians have not been brought into this process simply because of the time involved. He stated that the only preferences given are the preferences toward Missouri residents. He further indicated that of the ten out-of-state residents accepted for the coming year, five of these students have very close Missouri ties. He also has been receiving complaints about the increasing number of women students who are being accepted to the Medical School. Since April of this year when the Legislature appropriated monies for the Medical School at Kansas City, at the request of the Kansas City School, the Medical School at Columbia agreed to provide to the students the information that they should feel free to contact Dean Noback because they would be taking students.

Dr. Chandler stated that Dr. Noback had contacted the Jackson County Medical Society regarding physicians for interviewing purposes. They have initially appointed about 20 practicing physicians to interview prospective students, and Dr. Chandler stated that he was fortunate to be present for the first session.

The Chairman thanked Dr. Mayer for his report.—**Referred to Medical Education and Public Welfare Committee.]**

LEGISLATIVE REPORT

■ Dr. Matthews, Chairman of the Committee on Legislative Affairs, gave a brief rundown on the current status of medical and health legislation in the General Assembly. A complete legislative report will appear on a yellow insert page of the July Annual Session edition of Missouri Medicine. Dr. Matthews stated that, in general, medicine has come out of this session as well as or better than in past years and commended the staff and the physicians for their work and effort. He indicated that he felt good rapport has been established with the legislators.

Mr. McIntyre stated that we are not sure as yet what is going to happen to bills left on the House calendar at the close of the present session. It is rumored that these bills will be turned over to the Speaker of the House for his determination of what will happen to them. He possibly could refer those bills back in 1972 to the same committees, and they would have the authority to vote them out again if they so desired without any hearings. It may be that any bills left on the Senate calendar will die there. He said no one knows exactly what is going to happen, but there will have to be some definite rulings made in both houses.

The Chairman stated that MSMA is indebted to Dr. Matthews and the fine job he is doing. On motion of Dr. Miller, duly seconded, the report of the Committee on Legislative Affairs was accepted with commendation. Motion carried.—**Referred to Miscellaneous Affairs Committee.]**

AMA DELEGATES' REPORT

■ Dr. Neilson reported that the Woman's Auxiliary exhibit on Environmental Health has made quite an impact on everyone who has viewed it. This exhibit will be displayed at the AMA Convention this month in Atlantic City and at the Fall Conference to be held in Chicago in October. He stated that the University Extension Center has agreed to bring the exhibit from Columbia to St. Louis. This includes the cratings. The cost of shipment from St. Louis to Atlantic City and return will be approximately $55.00. He requested that the MSMA make funds available for shipment of the exhibit. On motion, duly seconded, it was agreed that MSMA support the Woman's Auxiliary program and make available to them the $55 for shipment of the exhibit from St. Louis to Atlantic City and the return.

Dr. Neilson stated that he would introduce at the AMA the resolution on "Restrictions on Use of Stimulant Drugs" as directed by the 1971 MSMA House of Delegates.

Dr. Neilson said that Dr. Benoit is a candidate for a position on the AMA Council on Medical Service and that the delegation will be working hard to get him elected. He said that the Presidents of all State Medical Associations have been contacted by letter informing them of Dr. Benoit's candidacy and asking for support of their delegations.

Mr. McIntyre stated that the Interspecialty Commission had been informed of Dr. Benoit's candidacy and were asked to correspond with anyone they may know in the AMA House of Delegates asking for support of Dr. Benoit.

Dr. Fisher reported that Dr. Roth, AMA Speaker of the House, was very complimentary to Dr. Neilson's efforts in looking after him while in Missouri at the MSMA Annual Session.

On motion of Dr. Cope, duly seconded, the report of the AMA Delegates was approved. Motion carried.—**Referred to Miscellaneous Affairs Committee.]**

REPORT OF COMMISSIONS ON CONTINUING EDUCATION AND INTERSPECIALTY

■ In the absence of the chairmen of the two Commissions, Dr. Matthews gave the following report of the Commission on Continuing Education and Health Manpower and the Commission on Interspecialty Medicine. These two Commissions held a joint meeting in Jefferson City on May 23. Monitors and Moderators participating in the 113th Annual Session reported on their respective scientific sessions. From more than 600 physicians registered at the 1971 meeting, the total number of physicians in attendance at scientific sessions at any one time varied from about 50 to 150. An attempt has been made in the past to give every subspecialty its turn on the program and certain groups have regularly-sponsored sessions. The lack of general attendance seems to be evidence that some change is necessary if the annual meetings of MSMA are to continue to attract physicians. Because of this, both Commissions were sent a letter regarding a proposed new format and a favorable response was almost unanimous. A summarization of the new format is, in essence, that the MSMA would hold its annual meeting in conjunction with the annual meetings of specialty and subspecialty or general practice groups that would care to participate. In this way, each specialty group would be responsible for its own program as it normally is at its regular annual meeting and would accordingly also be responsible for attendance at those meetings.

Dr. Matthews suggested that if the Council approves the idea of the Program Committee, that serious consideration be given to developing sections, i.e., general medicine, internal medicine, surgery, etc. They could all have their own section. This would help to strengthen the State Association by bringing these groups into more close relationship with MSMA. He stated that if the section idea is considered, it might be referred to the Committee on Planning for further investigation as to how this might be done and for their opinion of it before any action is taken.

Dr. Matthews stated that several of the specialty groups have already accepted this idea and are willing to go ahead with it. He further stated that it was not the Commission's intent that the specialty groups direct their programs to the general interest, but they would present them as usual to appeal to their own members. In order to allow sufficient time for scientific sessions of this nature, some change in scheduling of the meetings would be necessary. The following schedule was suggested:

Friday, April 7

8:30-10:00	General session on Peer Review
10:30-12:00	Scientific sessions
1:30- 4:00	Scientific sessions with a break midway to visit exhibits

Saturday, April 8

8:30-10:00	Comparative costs of different modes of medical care
10:30-12:00	Scientific sessions
1:30- 2:30	General session on HMO
3:00- 5:00	Scientific sessions

All groups are being contacted in order to obtain definite commitments with respect to their participation. The Commission felt this might bring the specialty groups together and would aid in boosting attendance at the scientific sessions. Dr. Matthews stated that the Commission would like to have some expression from the Council regarding their views on this matter.

Dr. Matthews indicated that it also was brought out at the meeting of the Commissions that house officers and younger men in practice might be given an opportunity to participate in the scientific programs. It was felt that this could more easily be accomplished through the specialty sections, as it is currently being done, for example, in the American College of Physicians' meeting.

Dr. Bradshaw stated that these sessions of the specialty organizations should be scheduled at times that would not conflict with MSMA scheduling. Mr. Fox stated that MSMA would still have the role of coordinating all of these groups with respect to meeting space, time, etc. and, in addition, the MSMA would be responsible for several general interest sessions to run at a time not in conflict with other sessions and to continue to arrange the annual luncheons and dinner meetings. Of course, all should respect the period of time to review exhibits.

Dr. McAlhany inquired as to whether or not an orientation program similar to the one which was held preceding the 1971 Annual Session was being planned for the next meeting.

Dr. Fisher indicated that the comments he received regarding the orientation program were good and the young physicians who attended were very appreciative of it. They were of the opinion that this would be good for every member of MSMA. Dr. Fisher felt that this should be continued at least for several years.

It was suggested that perhaps a more informal type of program that could involve dialogue among the new members might be better.

Discussion followed regarding the fact that about four county societies are presently having orientation programs for their members and perhaps this would be a duplication. Mention was made of the possibility of having these orientation programs on a district level. However, in some of the more rural areas, some districts would have very few new members.

It was generally agreed that the orientation program should be continued at the state level and that possibly the best time for this would be in conjunction with the Annual County Society Officers' Conference.

Dr. Miller suggested that the Commission on Continuing Education should give thought to having an MMPAC dinner during the Annual Session.

Dr. Hetlage stated that he felt consideration should be given to a change in the Annual Session meeting place, indicating that he felt poor attendance at the meeting is due to some extent to the facilities.

Mr. McIntyre indicated that the next Council Meeting will be held at Stouffer's Inn in St. Louis. This will give the Council and Officers an opportunity to look over the facility for possible future annual sessions.

Mr. Fox said that exhibit space is one of our major

A NIGHT TO REMEMBER! THE ANNUAL PRESIDENTS' BANQUET on April 8 was a highlight of the Annual Session. Hilarious entertainment was provided by the famous "Singing Doctors of Springfield," whose performance was outstanding. Guests danced to the music of Warren Durrett and his 17-piece orchestra.

(Left to right, top row) Retiring President Gerald L. Miller presents the official gavel to new President Walter T. Gunn; Mrs. Miller and Doctor Miller; Doctor Miller accepts a plaque of appreciation from President Gunn and the MSMA.

(Second row) "Singing Doctors" Charles E. Lockhart and Fred C. Coller; James R. Cook, F. T. H'Doubler, Jr., James T. Brown, Charles E. Lockhart, Don F. Gose and Fred C. Coller; Doctors Brown and Gose.

(Third row) AMA Delegate Arthur W. Neilson and Dr. Richard E. Palmer of Alexandria, Va., a member of the AMA Board of Trustees and a special guest at the meeting; Mrs. Donald R. Pierce of Topeka, President of the Woman's Auxiliary to the Kansas Medical Society; Mrs. Keith D. Jones, Warrensburg, President of the MSMA Woman's Auxiliary; Mrs. Robert F. Beckley of Lock Haven, Pa., President of the Woman's Auxiliary to the AMA for 1972-1973; Mrs. E. F. Butler and Doctor Butler, St. Joseph.

(Fourth row) Dr. and Mrs. William M. Walker, Springfield; Dr. Henry B. Ivy, Springfield; Mrs. Raymond McIntyre, Jefferson City; Dr. and Mrs. William D. Mayer, Columbia; Dr. Keith D. Jones and Mrs. Jones.

(Bottom row) Mrs. Max S. Franklin and Doctor Franklin, Third District Councilor; Mrs. Rae W. Froelich, Lebanon, and MSMA Past-President David N. Kerr, St. Louis; Mrs. James A. Reid and Doctor Reid, Marshall.

Mrs. Walker, Mrs. Butler and Mrs. Reid are Past-Presidents of the MSMA Woman's Auxiliary.

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problems now. Very few hotels have the facilities for a large number of exhibits. Dr. Cope suggested that the exhibitors might consider merely making a donation in lieu of an actual exhibit with their firms being credited for this donation.

On motion of Dr. Gunn, duly seconded, the report of the Commission on Continuing Education and Health Manpower and Commission on Interspecialty Medicine was approved, including Dr. Matthew's suggestion of a feasibility study regarding the section idea. Motion carried.—**Referred to Medical Education and Public Welfare Committee.]**

Summary Session

Sunday Afternoon—June 5

■ Dr. Fisher inquired as to whether or not it is necessary to have summary or Executive Sessions following each session of the Council, for instance, Saturday morning, Saturday afternoon and Sunday morning.

The question was raised as to whether or not the minutes of these special sessions would be published.

Dr. Cope indicated that perhaps these meetings should be called summary sessions, instead of executive sessions, and that at least one summary session should be scheduled for each Council Meeting.

Dr. Franklin indicated that he saw no reason why the minutes of these sessions should not be published, except, of course, in special instances to be determined by the Council.

Dr. Hetlage asked if business comes up between the time Councilors are asked for items to be put on the agenda and the time of the meeting, how to introduce them. He was informed that these matters can be brought up during the Councilor District reports.

The meetings adjourned at 4:00 pm.—**Referred to Reports of Officers Committee.]**

Council Meeting (Continued)

MEDICAID PROGRAM

■ The Chairman called on Dr. Peterson to discuss a matter pertaining to the Division of Welfare Medicaid Program. Dr. Peterson referred to a letter dated May 28, 1971 from Mr. Proctor Carter to "All Physicians Participating in the Missouri Title XIX (Medicaid) Program." Paragraph 2 of this letter says that presently there is being placed on some patients' orange cards certain restrictions and certain conditions, such as what physician, what hospital, what pharmacy may be used by this patient. Dr. Peterson indicated that this was done without the knowledge of the Advisory Committee of which he is a member.

It was brought out that this has been protested by a number of physicians. It was stated that, no doubt, this is being done to eliminate over-utilization of the program by some Medicaid patients.

After further discussion, Dr. Hansbrough moved that a letter be written to Mr. Carter asking for clarification as to numbers and how they are selected and express to him an interest in helping solve the problem. Motion was seconded and carried. It also was agreed that the letter be written by Dr. Stricker as Chairman of the Council. —**Referred to Resolutions Committee.]**

REPORT OF COUNCIL COMMITTEE ON MEMBERSHIP COMMUNICATIONS

■ Dr. Franklin, Chairman of the special Council Committee on Membership Communications, gave the following report regarding his Committee meeting held on Friday, June 4. All members of the Committee were present with the exception of Dr. McAlhany, who sent his suggestions. Drs. Stricker, Miller, Gunn and Bradshaw also were in attendance.

Dr. Franklin indicated that he was indebted to Dr. Cope who sat down and prepared an excellent two-page outline on what he thought communications should be. Communications were discussed thoroughly as to possible ways and means of handling such, with the Committee offering the following suggestions:

It was agreed that Missouri Medicine should remain our prime means for member communications, although Dr. Cope suggested that we get an off-set press to help in sending out materials to keep our members informed. Dr. Cope also suggested having liaison officers in each hospital who might keep their staff members informed on current matters, these liaison officers to be appointed by the Council. Other suggestions included having a "Letters to the Editor" column in Missouri Medicine, so that controversial subjects could be discussed by people writing to Missouri Medicine.

Dr. Franklin reported that, in final conclusion it was agreed, as suggested by Dr. Miller, that this Committee should be an on-going one, but we should include the Editor of Missouri Medicine in the group, either as part of the committee or as a consultant; someone from the Interspecialty group; and possibly somebody representing the young members of MSMA.

Another suggestion made at the committee meeting was that frequently MSMA should publish a green information sheet similar to that published by AMA. Dr. Cope stated that these could be mailed in bulk to the hospital liaison officers for distribution to the physicians.

Dr. Miller suggested that consideration might be given to presenting a journalism award annually, which might be for both professional and lay writers, for an outstanding article which received wide press.

Dr. Hetlage outlined plans regarding communication with the physicians for his Councilor District. He stated that prior to the Council Meeting, he held a meeting of the Presidents, Vice-Presidents and Delegates of the county societies in his district. During that meeting, he agreed to send out a newsletter to each member of his Councilor District informing him of actions taken by the Council. He asked the Council for approval of this idea. Dr. Hetlage was informed that this matter is the prerogative of the Councilor. Dr. Cope suggested that the MSMA office could address stamped envelopes for his mailings, if he will furnish them.

Dr. Fisher stated that he felt that the Councilor from the Third District and the President-Elect might visit with the editor of "News and Views" and have an article in hand explaining in detail the Health Care Foundation of Missouri in such a way that the editor might desire to publish it.

Dr. Bradshaw indicated that he felt that continued education regarding the HCF is most important and information such as Dr. Benoit's report should be disseminated.

On motion of Dr. Cope, duly seconded, the report of the Council Committee on Membership Communications was accepted.

Dr. Cope asked for clarification of the exact responsibility of the Committee. Dr. Bradshaw explained that the intent of his motion in the formation of the Committee was to explore all avenues of communications in order to better inform the MSMA membership.

Dr. Hetlage suggested a possible question-and-answer type column in the Journal. Dr. Miller stated that Mr. Noble had given him suggestions regarding a column in the Journal on how and why the HCF was initiated and have a column each month with up-to-date information regarding the Foundation.

Dr. Bradshaw moved that the staff be directed to set a special column in each issue of Missouri Medicine for the purpose of keeping the membership of the Association informed on the progress of the HCF. Dr. Fisher amended the motion to include the notification concerning the article, including the page number, be printed in a distinctive color on the cover page of the Journal to direct the membership to the article. The amended motion was duly seconded and carried.

Mr. McIntyre indicated that he felt this article should be cleared by someone each month prior to its appearance in the Journal. It was agreed that the Chairman of the HCF should review the article.—**Referred to Reports of Officers Committee.]**

■ Dr. Fisher, Immediate Past-President, suggested that the Council consider how to manage the student members and how to entice House Officers to become active and participate in our Association. In reviewing the By-Laws, he said we might make all students and house officers associate members of the Association, which does not entitle them to vote. He also suggested that student to the House of Delegates and these delegates would be organizations, such as SAMA and organizations of House Physicians, residents and interns, might elect delegates granted the privilege of voting and serving on reference committees and, also, introducing resolutions, if they so desire. This could perhaps amount to three delegates and three alternates. Possibly, some of our problems could be resolved. It was pointed out that they should all be encouraged to be members of both the county society and the state association.

After further discussion, on motion of Dr. Fisher, duly seconded, it was agreed that the matter of student membership, as well as intern and resident membership, be referred to the standing Committee on Constitution and By-Laws for study, and recommendations.—**Referred to Constitution and Bylaws Committee.]**

■ Dr. Miller again brought up the subject of CMT and CPT, four- and five-digit systems with the recommendation that MSMA endorse the five-digit system. He stated that it is essential to have a uniform nomenclature. He also stated that with the addition of new terminology, the four-digit system would not be adequate much longer. On motion of Dr. Miller, duly seconded, the Council agreed to adopt this recommendation along with suitable measures for implementation. It also was agreed that Dr. Miller, as President of MSMA, will forward a letter to this effect to Dr. Howard, Executive Vice-President of AMA.—**Referred to Resolutions Committee.]**

COUNCILOR DISTRICT REPORTS

■ Dr. Martin, First District, introduced the subject of the possible hyphenation of Clay and Platte Counties Medical Societies. He said that an opinion was rendered by Legal Counsel which stated that if the hyphenation were accomplished, under interpretation of the present MSMA By-Laws, they would lose one delegate. After further discussion, it was suggested that this matter be referred to the Committee on Constitution and By-Laws for study and recommendation.—**Referred to Constitution and By-laws Committee.]**

■ Dr. Franklin, Third District, reported on the success of the Legislative Dinner which was sponsored by the St. Louis Medical Society, stating that this affair was handled very well by Dr. O'Neal, the President and the Executive Secretary, Mr. Smith.

Dr. Franklin stated that Dr. Kerr, Chairman of the Medical Advisory Committee to Selective Service System, sent a letter which he requested to be brought before the Council regarding a physician who has been classified as a Conscientious Objector and requested he spend his two years working in a general medical practice in some rural area where a physician is needed. Dr. Kerr indicated that there was no method of financing for this type of thing, other than the fees which he would receive. However, some localities might be willing to help set a man up in practice. It was Dr. Kerr's thought that the State Association should be aware of this situation. After general discussion, it was agreed that Dr. Kerr get in touch with several of the Councilors who expressed their interest.—**Referred to Medical Education and Public Welfare Committee.]**

■ Dr. Hetlage, Fourth District, reported that the most active medical societies in his District are St. Louis County and St. Charles-Lincoln. Jefferson County and Franklin-Gasconade-Warren are not as active, but he hopes to get the latter societies back on a more active basis.

Dr. Hetlage reported that he has interviewed approximately 20 men who have returned from Viet Nam in the past six months. He stated that the heroin addiction of the Armed Forces in Viet Nam is high. Many of these addicts do not submit to the present amnesty program, which says that if a man presents himself to his chaplain or physician and asks for treatment, he can be cured without this appearing on his army record. Dr. Hetlage indicated that he is very concerned about this problem and the heavy load it will place on physicians and on society as these servicemen are discharged. He referred to three bills which are presently being considered by the House Armed Services Committee regarding drug addiction in Viet Nam. Particular reference was made to House Resolution 8436 which is the strongest of the bills and spells out that addicts will not be discharged from the Armed Forces until it is proven that they are no longer addicted.

Dr. Hetlage moved that a letter be written to the U. S. Senators and Representatives from Missouri expressing our concern and indicating support for House Resolution 8436 and, also, that this matter be referred to the Commission on Public Affairs for further study and a report back to the Council. Dr. Miller amended the motion to include that a resolution to this effect be prepared to be submitted to the AMA House of Delegates at the meeting in June. The amended motion was seconded and carried.

Dr. Peterson indicated that Dr. Hall is on this Armed Services Committee and he would speak to Dr. Hall regarding this legislation.—**Referred to Miscellaneous Affairs Committee.]**

■ Dr. Cope, Fifth District, reported that he had received a letter from the Canadian Medical Protective Association regarding malpractice in Canada and how they handle it, copies of which were distributed to the

Council. He stated that he felt this would be of interest to the Councilors.

Dr. McAlhany, Eighth District, gave a brief report on the controversy between IRS and the Greene County "Singing Doctors."

Dr. McAlhany indicated that Greene County Medical Society held its annual meeting with the Greene County Bar Association last month. The Bar Association will meet this month and if they feel it is feasible, the Greene County Medical Society and the Bar Association will pursue further the possibility of entering into an arbitration panel in Greene County.

Dr. Chandler, Seventh District, reported that the Medical-Legal Committee of the Jackson County Medical Society met with its counterpart of the Kansas City Bar Association. Discussion was held regarding the development of an interprofessional code or at least updating the existing code and, also, the desirability of developing some type of medical-legal review system in cases of alleged medical malpractice.—**Referred to Constitution and By-laws Committee.]**

■ Dr. Chandler further reported that Kansas City Blue Shield has come to the County Medical Society asking for a pilot study to be made on the Certified Hospital Admissions Program (CHAP) type arrangements. This was sanctioned by the Society.

Regarding HMO's, Dr. Chandler indicated that, on two occasions, representatives of the Kaiser-Permanente Foundation have come to Kansas City and indications are that Kansas City may be under consideration for their program. On the second visit, he said they phoned Mr. Allen Smith and promised they would communicate further, but have not done so thus far.—**Referred to Resolutions Committee.]**

NEXT COUNCIL MEETING

Dr. Gunn invited the Council to St. Louis for the next Council Meeting. The Council Meeting will be held at Stouffer's Inn on September 18 and 19, 1971.

Meeting of September 18, 19, 1971

E. A. Stricker, M.D., St. James, Chairman, called the meeting to order. Those present were Drs. Stricker; John N. Martin, St. Joseph; Lysle M. Bach, Hannibal; Max S. Franklin, St. Louis; Louis P. Hetlage, Troy; James C. Cope, Columbia; Wm. D. Bradshaw, Clinton; R. Allen Chandler, Kansas City; Howard J. McAlhany, Springfield; Eugene T. Hansbrough, Poplar Bluff; Gerald L. Miller, Kansas City; Walter T. Gunn, St. Louis; Charles R. Gulick, St. Louis; John I. Matthews, Jefferson City; Joseph L. Fisher, St. Joseph; Stanley S. Peterson, Springfield; Arthur W. Neilson, St. Louis; Hector W. Benoit, Jr., Kansas City; Richard P. Bowles, Liberty; Paul R. Young, Columbia; Robert Kelley, St. Louis; Daniel L. Yancey, Springfield; Joseph Finnegan, St. Louis; Lawrence O'Neal, St. Louis; Wm. D. Mayer and Wm. C. Allen, Columbia; Robert H. Felix and M. Kenton King, St. Louis; Richardson K. Noback, Kansas City; Messrs. John W. Noble, Kennett; James Hughes, St. Louis; Tim Norbeck, St. Louis; Allen D. Smith, Kansas City; Gary L. Schnedler, Springfield; Hollister S. Smith, and Wm. Lindsley, St. Louis, Ray McIntyre, Tom P. Fox, Bob Carroll and Royal O. Cooper, Staff.

COMMISSION ON MEDICAL-LEGAL AFFAIRS

■ Dr. Daniel Yancey, Chairman of the Commission on Medical-Legal Affairs, gave the following report. He indicated that the Commission, with approval of the Council, conducted a survey of MSMA members regarding their present malpractice insurance. After a copy of the survey results was distributed to the Council, Dr. Yancey gave a brief run-down of these results. Approximately 4,100 questionnaires were mailed and 1,891 were returned. Since some of the returns represented group practice, it was estimated there was approximately a 50% return. Dr. Yancey stated that he felt this return will give the Commission guidelines with which to work. In those questionnaires returned, 97.6% of the physicians stated they were covered by some type of liability insurance. Most of the physicians indicated no problems with their current carrier. Among problems with their carriers, the most prevalent was a continual premium increase.

The questionnaire also asked for suggestions regarding what can be done about the professional liability insurance cost problems. Various types of answers were received. Dr. Yancey stated that he felt this survey indicated that the physicians of Missouri have a very good rate and it is difficult to understand why the premiums continue to increase. He said that during last year, there was a substantial increase.

Dr. Yancey reported that his Commission met on August 29, 1971 at the Columbia Inn and results of the above-mentioned survey were discussed.

The Commission also discussed the recently-developed AMA Professional Liability Program, which is a coordinated effort by the AMA, CNA and Marsh-McLennan Insurance. Within 90 days, an informational booklet regarding this program should be available. Dr. Yancey indicated that his Commission will study this professional liability program further when the information is available and appointed a committee to meet with Marsh-McLennan and representatives of CNA and to report back to the Commission.

Dr. Yancey presented 28 suggestions on malpractice prophylaxis prepared by the Oklahoma State Medical Association. These suggestions had been presented to his Commission previously and the Commission recommends to the Council that this Malpractice Prophylaxis, along with the results of the Professional Liability Survey, be mailed to all members of the Association. Dr. Yancey indicated that his Commission did not feel the Journal is the source for this distribution.

The Commission also discussed a resolution passed by the MSMA House of Delegates regarding the "Medical Examiner System for Missouri." The House felt that a program for the entire state might be too costly and that a pilot medical examiner act be considered. The Medical-Legal Commission of MSMA and a similar committee of the Missouri Bar Association will meet in Columbia in November to discuss a pilot program. It is hoped that it can be presented in a form that can be passed in the next Legislature. Dr. Yancey said he hoped that the Councilors and Officers present will attend that meeting.

During the Commission meeting, Dr. Ford discussed the possibility of the MSMA preparing a medical newsletter similar to the AMA's, "The Citation," which could present briefs of Missouri malpractice cases of interest. The Commission recommends to the Council that this matter be given further study and implemented for the benefit of MSMA members, if possible.

Discussion followed regarding Dr. Yancey's presentation. Dr. Felix stated that he felt the Malpractice Prophylaxis article was so good that it should be made available to all senior medical students in the state. Dr. Fisher recommended that this be incorporated in the orientation program for new members. After further discussion, on motion Dr. Matthews, duly seconded, it was agreed that a copy of the Malpractice Prophylaxis should be distributed to every senior medical student in the state and every new member in the State Association for five years. It was suggested that at the end of that period of time, a decision could be made as to whether or not it then should be continued.

On motion, duly seconded, the report of the Commission on Medical-Legal Affairs was accepted with commendation.—**Referred to Constitution and Bylaws Committee.]**

REPORT OF THE EXECUTIVE SECRETARY

■ Mr. McIntyre reported that Dr. Richard Sutter, who been appointed to the 12-man National Advisory Committee on Occupational Safety and Health, is the only physician on the Committee.

Mr. McIntyre stated that the MSMA recently reached an understanding with the IRS regarding taxes on Missouri Medicine advertising for the year 1968-1969. He said that MSMA also recently received a letter from IRS indicating that our tax exempt status is still intact and will continue.

Mr. McIntyre reported that President Nixon spoke at the June meeting of the AMA. The MSMA, in cooperation with the metropolitan medical societies, placed full-page ads in the *St. Louis Globe-Democrat* and the *Kansas City Star* accepting the President's challenge. The ad also was published in Missouri Medicine.

Mr. McIntyre then asked Mr. Carroll to discuss items regarding the Journal. Mr. Carroll asked the Council if anyone had received any comments regarding the change on the cover of Missouri Medicine calling attention to certain articles within the Journal.

He called the Council's attention to the expense involved in printing the full Council minutes in the Journal. He suggested that these might be presented in a condensed form covering the highlights of the meeting. Discussion followed. It was indicated that many physicians do read the Council minutes. On motion of Dr. Hetlage, duly seconded, it was agreed that we continue to publish the full Council minutes in the Journal, along with a condensed version covering the highlights of each meeting.—**Referred to Reports of Officers Committee.]**

■ Mr. McIntyre then called on Mr. Cooper for remarks regarding the AMA Regional Conference on Health Quackery in Chicago on Aug. 6, 1971 which was attended by Mr. Cooper and Dr. Matthews. Opening remarks were made by Dr. Howard. Mr. Cooper reported that many types of health quackery were discussed. Tony, the Filipino psychic surgeon, is still performing in the Philippines. Meetings are being held in this country to obtain patients. Scientology, including Silva mind control and Alpha waves, was explained briefly. Medihair was another form of quackery which was discussed. This is a procedure for implanting wire in the scalp and attaching hair to the wires. There also is a new group of mental health quacks. Regional Therapy or foot tickling was discussed. This cult believes that all organs are connected by some mechanism to the sole of the foot and that diseases can be cured by gently palpating various areas of the sole. Many new attempts are being made to place hypnosis in some of the state medical practice acts.

Mr. Cooper reported that time was spent discussing chiropractic. Some states are introducing legislation requiring applicants for chiropractic licensure to have graduated from a school accredited by an accrediting agency recognized and approved by the National Commission on Accrediting and the Commission of Education, Department of HEW.—**Referred to Miscellaneous Affairs Committee.]**

■ Mr. Carroll gave a report on the AMA Communications Clinic held in Chicago on Aug. 16-17, 1971. This meeting was attended by Drs. Miller, Gunn, Richard Bowles and Mr. Carroll. A complete report of this

Fourteen Past-Presidents of the Missouri State Medical Association were introduced and honored at the Presidents' Banquet. *(Left to right)* Drs. Joseph L. Fisher, St. Joseph; Ralph Perry, Kansas City; David N. Kerr, St. Louis; Byron M. Stuart, Boonville; Miles C. Whitener, St. Louis; Donald M. Dowell, Chillicothe; Victor B. Buhler, Kansas City; H. E. Petersen, St. Joseph; W. A. Bloom, Fayette; Robert Mueller, St. Louis; James R. McVay, Kansas City; Hector W. Benoit, Jr., Kansas City; Doyle C. McCraw, Bolivar; and Kenneth C. Hollweg, Kansas City.

Clinic appears in the October issue of Missouri Medicine.

Mr. McIntyre indicated that Dr. Domke had appeared before the Council at their last meeting and had discussed a coordinating committee to work on physician placement. This coordinating committee has been set up with Dr. Domke as Chairman, and several meetings have been held with Mr. McIntyre and Mr. Cooper attending.

On motion, duly seconded, the report of the Secretary was approved.—**Referred to Medical Education and Public Welfare Committee.**]

REPORT OF THE TREASURER

■ Dr. Gulick, MSMA Treasurer, gave a brief report on the financial standing of the Association, copies of which were distributed to the Council and Officers. He stated that the Association is in good financial condition at the present time. On motion of Dr. Miller, duly seconded, the report of the Treasurer was approved.

MISSOURI STATE MEDICAL FOUNDATION

Dr. Franklin reported that a mail poll had been taken of the Board of Trustees of the Missouri State Medical Foundation regarding changing the present insurance program from Occidental Life Insurance Company to a program of self-insurance. The Board favored this change. This would mean discontinuing the coverage now purchased from Occidental and assuming financial responsibility for loans not repaid due to death of any student. Dr. Franklin stated that during the past 11 year, only two claims have been filed for a total of $1,100. Premium cost saving would be approximately $2,200 per year. Upon consulting our attorney, it was learned that no legal responsibility is involved, but felt MSMF has a moral responsibility to notify all students who have borrowed in the past and have loans outstanding.

Following a brief discussion, Dr. Franklin moved that the Council approve the action of the MSMF Board of Trustees to cancel the insurance coverage with Occidental and to self-insure the loans. Motion was duly seconded and carried.—**Referred to Reports of Officers Committee.**]

COMMITTEE ON LEGISLATIVE AFFAIRS

■ Dr. Matthews, Chairman of the Committee on Legislative Affairs, gave the following report. He stated that his Committee met on September 17. Discussion was held regarding a revision of the Nurse Practice Act in Missouri, as it affects R.N.'s and L.P.N.'s, which is currently being considered by the nursing organizations. The Legislative Committee plans to study the proposed legislation before the next Council Meeting. Dr. Matthews recommended that all members of the Council read the proposed legislation and become acquainted with it.

Dr. Matthews reported that MSMA has been approached regarding support for proposed legislation regarding a state loan fund for Missouri students in the health field. This would not require students practice in the state. The Legislative Committee discussed this at length and agreed to support this type of legislation. Brief discussion followed. It was pointed out by Dr. Matthews that this fund would be for students at any one of the medical schools or osteopathic schools in Missouri. It would virtually be a revolving fund and would cost the state only the interest involved.

On motion of Dr. Cope, seconded by Dr. Miller, it was agreed that this be endorsed in principle.

Dr. Matthews reported that the MSMA has been approached regarding participation in voter registration. He indicated that such participation probably would involve supporting enabling legislation regarding voter registration. He stated that his Committee would like some expression from the Council as to whether this should be pursued further.

Following a brief discussion, Dr. Bradshaw moved that this particular matter, voter registration, be pursued as a study. Motion was seconded by Dr. Miller and carried.

Dr. Matthews said that several other matters were discussed regarding future legislation.

On motion of Dr. Martin, duly seconded, the report of the Committee on Legislative Affairs was accepted with commendation.—**Referred to Miscellaneous Affairs Committee.**]

PRESIDENT, MISSOURI MEDICAL SERVICE

■ Mr. McIntyre introduced Mr. James Hughes. Mr. Hughes is the recently-appointed President of Missouri Medical Service (St. Louis Blue Shield).

Mr. Hughes indicated his pleasure in being able to attend the meeting and gave a few brief remarks regarding his background with the Blues. He stated that it will be his honest effort to improve Blue Shield programs in this state in cooperation with Blue Shield of Kansas City and to work with other Blue Shield Plans throughout the country. Mr. Hughes asked the Council for its cooperation and stated he would welcome any constructive criticism.—**Referred to Resolutions Committee.**]

REMARKS OF THE PRESIDENT

■ Dr. Miller thanked Dr. Gunn for a lovely day on Friday and made the following remarks. "I would like to talk to you about several thoughts that I consider quite important. I would refer first to a comment made by Dr. Matthews. I am not personally secure that we as physicians in the existing pluralistic health care delivery system are not in jeopardy. A total change of the health care delivery system can do devastating things to the health of our people (patients) as well as to the physicians as providers. A senator very recently, in speaking to a medical community, alluded to the fact that there is going to have to be, by necessity, a tremendous amount of statesmanship manifested in Washington if we are to avoid total governmental dominated medical programs with perhaps unneeded NHI and destruction of the existing superior health care system.

"American medicine has come a long way in its political awareness. Due credit must be given to AMPAC with its impact in Washington and locally, as well. Medicine must participate in politics with time and money if we are going to avoid a major revolution in the health care delivery system.

"Criticism is a real part of our social structure. Medicine is not alone in its magnetism for criticism. I ask that you take a look at the plight of the railroads, schools, churches, unions and politicians. Criticism of health care today is attended by something much more ominous, however, with the threat to replace a system which is the product of decades of progress with something unknown, but socialistic.

"I ask you to sit down, identify some of our current existing problems. What in the existing system is in trouble? A. Cost—We as physicians receive about 15¢ of the health care dollar for services. Factors beyond the control of the physicians have largely been responsible for increased costs. We, as physicians, must sit down and look practically at this problem for we are not without blame, and we must identify the problem. We must accept this responsibility and look for the immediate solution relative to costs. I ask you to look for a moment at those things which have had impact on the rising cost of medical care, they are: (1) Significant increase of health services which are available to the people (by law); (2) Technical advances; (3) Population increase; (4) Sky-rocketing medical liability insurance; (5) Inflation; and (6) Labor. Is this system worth fighting for? The same physicians under any system are going to be rendering the service.

"B. The other issue under attack is the unavailability of health care. Surely without a revolution within the social system, without socialized medicine, these problems can be identified and corrected within the existing health care delivery system, so that we may avoid destroying something as great as American Medicine.

"Take a hard look at other health care delivery systems—England, France, Germany and the proposed HMO's. HMO's are not well defined—I want them identified and tested thoroughly in different geographic settings. What impact will come from HMO's? Cost, quality and effect on people and physicians. This is a mechanism the administration is suggesting in lieu of the Kennedy proposal. However, in due time, the total regimentation of physicians thru HMO's becomes a group of physicians without voice and completely socialized.

"Since 1965—Medicare then Medicaid—Federal programs with a record of inadequate funds, pegged or prorated fees for service, over and under utilization and a quagmire of confused regulations from ill-informed bureaucratic lay people. I cannot see anything else—HMO's should be given a careful, well defined study with total audit before we submit approval and abandonment of the current system.

"I think the issues are very simple. A group of our well-educated sophisticated physicians are giving more time to fewer people and with fewer primary care physicians, the unavailability of patient care is not just confined to rural or ghetto areas. If we are to take action to preserve the current system, we must answer these charges having defined the problems and with proposals for their solution. Then, we have to go to work. I really think we are in some jeopardy. In the Philippines, one half of the physicians are doing menial tasks. A few years ago, teachers were in demand everywhere and now we have teachers who can't get a job. In the 60's, engineers went thru similar dismaying problems. I am not against HMO's if it can be demonstrated they are effective delivery mechanisms. However, let us insist that pilot studies be done so that we can be assured that HMO's are the answer to problems of cost and unavailability of health care.

"We have little idea concerning the magnitude of our urban and rural problems regarding drug and VD. We of medicine must take steps here in Missouri in conjunction with other agencies to acquaint ourselves with these symptoms of social illness and have import. No longer is this just a public health problem. We propose through the help of Drs. Bradshaw and Bill Knight to go to Dr. Domke to see what statistics he has. This is our business and I think we need to get involved in it."

Dr. Miller reported that he was on the program of the Eighth Councilor District Meeting held in Springfield on September 9. Also on the program was Alan Bloom of HEW who spoke on HMO's and did a good job. We received wide press reaction and, hopefully, Dr. McAlhany will allude to some of the things said in the press.—**Referred to Resolutions Committee.]**

PRESIDENT'S ADVISORY COMMITTEE REPORT

■ Dr. Miller reported that the President's Advisory Committee met in Columbia on August 22. Members of the committee stated that there is no place for a capable, young man to break into the structure of organized medicine. "Before this session is over, I hope to ask you to take some action regarding this. There is that unidentified graduate student—no organization, no involvement and ready to go into practice. It is the feeling of many of the young physicians that the MSMA and particularly the AMA are sterile. I do think physicians have no concept of economic problems in our communities They don't get this information—it is there, is readable and it is available, but, somehow, we are not reaching these people. There must be some communications tool we might be using, such as hospital staffs, newsletters, etc. How can they be reached?"

Dr. Miller said that he was pleased that the Council gave him the privilege of forming this Committee of young physicians. He urged the Council to read "Health Care in America: A Heretical Diagnosis" by Harry Schwartz in the August 14 issue of *Saturday Review*.

Dr. Miller invited all members of the Advisory Committee to attend the MSMA Council meeting in January and the Public Affairs Conference which will be held in conjunction with it. He then made the following assignments to Committee members: Dr. Fairchild to seek mechanisms whereby the MSMA can inform medical students and house staff members concerning organized medicine and the private practice of medicine; Dr. Hunt to seek ways to get student house staff members and young physicians in practice involved in organized medicine.

Dr. Miller asked Dr. Lewis to consult with school officials at various levels to seek ways in which the MSMA can work with school systems to provide more effective instruction in health related subjects such as sex education, venereal disease and drug abuse.

Drs. Rother and Hunt were asked to suggest possible ways in which the election of Councilors and Officers of the State Medical Association could be changed to give members a great voice in such selection. Dr. Heutel was asked to use his contacts with corporations in the St. Louis area to compile information concerning the drug problem in industry and to determine what steps are being taken to combat the problem.

After discussion, on motion, duly seconded, the Report of the President's Advisory Committee was accepted.—**Referred to Reports of Officers Committee.]**

HEALTH CARE FOUNDATION

■ Dr. Benoit, Chairman of the Health Care Foundation of Missouri, gave a brief report on recent activities of the Foundation. He reported that the Foundation has had the opportunity to present a special part of the program for the Annual Seminar of Kansas City Blue Shield. Basically, the group was presented information on what the HCF is, what peer review is about and how it should work. A peer review panel was conducted.

Dr. Benoit further reported that they have accepted the responsibility for presenting a telelecture series regarding the Health Care Foundation. This will be heard through 52 outlets throughout the state.

The Health Care Foundation will hold a Board meeting on Sunday, September 19. One item on the agenda is necessary changes in the bylaws, primarily having to do with membership.

Dr. Benoit stated that a ruling by the Legal Counsel of the Board of Registration for the Healing Arts indicated that the two Board members serving as ex officio members of the Judicial Committee of HCF should not serve due to possible conflict of interest. In view of this, the HCF bylaws will be changed accordingly. On motion of Dr. Martin, duly seconded, the report of the Health Care Foundation was approved.—**Referred to Resolutions Committee.]**

PROBLEMS REGARDING TRAINING NURSES IN N.W. MISSOURI

■ Dr. Martin reported on problems of schools for training nurses in Northwest Missouri. He stated that only one school with a straight two-year program is available, and it is having difficulty with the State Board of Nursing and its regulations. He said that at St. Joseph, Missouri Western College had 63 applicants, but only 15 were accepted due to certain regulations of the State Board of Nursing. The nurses training program at Methodist Hospital in St. Joseph has no accreditation. He stated that the problem of training more nurses is critical and something will have to be done about it. It was pointed out that considerable conflict exists between the diploma schools and the degree schools which is hurting the nursing profession and must be resolved.—**Referred to Medical Education and Public Welfare Committee.]**

COUNCILOR DISTRICT REPORTS

■ Dr. Martin reported that the First Councilor District meeting is scheduled for November 17 at the Roubidoux Hotel in St. Joseph. Dr. Martin then stated that the Rotary Club had planned to use a slide presentation furnished by the U. S. Chamber of Commerce entitled "Health Care—The Great Debate." He said they previewed the film before showing and found that it was very misleading from the doctors' standpoint, but, also, some of the statements were damaging. Needless to say, the Rotary Club did not use the presentation.

Dr. Bach, Second District, reported that within the past 18 months in Hannibal, one of the hospitals has installed a cardiac care unit. He also stated that they are contemplating the installation of an isotopes program and are starting on a new hospital building program of approximately 2.5 million dollars.

Dr. Franklin, Third District, said that the St. Louis Medical Society Council passed a resolution on Water Pollution supporting Proposition #3 which will be presented to the State Water Pollution Board. He also said he was instructed by the St. Louis Medical Society Council to report to the MSMA Council that the Health Care Foundation should not accept any federal funds. He also stated that the St. Louis Medical Society wishes to sponsor a series of travel tours and would like for the MSMA Council to approve co-sponsorship of these tours. He explained there is no monetary commitment involved. However, they feel this co-sponsorship would create more interest throughout the state and greater participation by members over the state. A meeting is scheduled on September 28 by their Travel Committee to determine how many are interested in these tours.

After discussion, on motion of Dr. Franklin, duly seconded, the Council agreed to co-sponsor the proposed travel tours of the St. Louis Medical Society.

Dr. Hetlage, Fourth District, stated that since this is his first term of office, he needs to become better acquainted with the members in his district. During the summer, he attempted to attend meetings of his county societies and additional meetings with their presidents, as well as the Council meetings of the St. Louis County Medical Society. He stated that from observing his rural societies, he noted two primary factors—one, the members isolation from academic environment; two, the lack of G.P.'s. He said he noted a dissatisfaction on the part of some physicians, not only in organized medicine as a whole but, also, in representation by the MSMA and AMA. Some indicated a willingness for a higher degree of involvement in the state association, but do not know how to go about it. He said he found a great number of interested physicians who are never asked to serve and suggested a reappraisal of the state medical association's committee appointment policy as well as election policies.

Dr. Hetlage spoke briefly regarding the rumored amalgamation of St. Louis Medical Society and St. Louis County Medical Society. He also mentioned a proposed Bi-state Federation which would include the entire Fourth Councilor District, the Third Councilor District and a few counties in Illinois.—**Referred to Reports of Officers Committee.]**

■ Dr. Hetlage read a resolution regarding coordination of benefits by insurance companies. When two insurance policies are involved, they will pay a comparative portion of the cost. He noted that this involves a great deal of paper work and delay in payment for both the physicians and the patients. He suggested that the Council go on record as favoring the investigation of these practices and that this problem be referred to an appropriate commission for consideration and evaluation. The Chairman referred this matter to the Commission on Medical Economics and Third Party Medicine.

Dr. Franklin stated that the hospitals in the St. Louis area received a communication from Blue Cross regarding the Federal Employee Program which included coordination of benefits and indicated that on all claims, it must be noted whether the patient has other health coverage. The coordination of benefits exclusion applied to both inpatient and outpatient care. Dr. Miller stated that in 1970, the FEP went into the hole about $75 million. It also was stated that the physicians will receive a communication on this subject from Blue Shield in the very near future.—**Referred to Resolutions Committee.]**

■ After further discussion, on motion of Dr. Miller, duly seconded, the Council agreed that this matter of the study of our current organizational structure be submitted to the Planning Committee for thorough study and assessment with recommendations to be brought back to the Council.—**Referred to Reports of Officers Committee.]**

■ Dr. Cope, Fifth District, reported that a meeting on HMO's held at Columbia had an attendance of 134 people. Considerable interest was shown in that area. He also reported that Boone County Medical Society met with a group of lawyers and had an interesting meeting. Dr. Cope also reported that the Boone County Hospital was inspected by the JCAH and was given a set of 37 suggestions which were unrealistic and would only result in an increase in cost without any real benefit to the patient.

Dr. Cope also mentioned that a urologist group hired a physician's assistant who was trained as a Corpsman in the Navy and had had further training of 1,000 hours as a G.U. technician, plus two years experience. He stated that he is good, but asked what is to keep him from going out on his own to practice G.U.—**Referred to Miscellaneous Affairs Committee.]**

■ Dr. Chandler, Seventh District, reported that the Planning Committee of the Jackson County Medical Society presented extensive revisions to the Council of JCMS which were accepted at its meeting on August 23. Some of the proposals included more responsibility for the younger men and stimulation for the older men who do not participate in organized medicine; recruitment programs for all physicians who do not belong to the Society; Council seat available to student bodies; establishing a Board of Directors consisting of representatives of medical staffs of community hospitals; an Executive Committee which would handle most of the work now performed by the Executive Council. The Planning Committee also recommended eliminating all nonworking committees, limiting the standing committees to those which are known to have continuous responsibilities and the appointment of ad hoc or task force committees and disbanding them when their work is completed; also eliminating the three-member, three-year term provisions relating to committees. The Planning Committee also recommended changing the title of the Executive Secretary to Executive Vice-President with his actions accountable to the Executive Committee.—**Referred to Reports of Officers Committee.]**

■ Dr. Bradshaw, Sixth District, reported that the Division of Health is working on some of the problems reported by President Miller. They are being studied and will be continued. He also reported problems with Comprehensive Health Planning in the Sixth District. He stated that after a ten-day spurt, they have heard nothing further on the state level.

Dr. Bradshaw also reported that one of the C.O.'s from the University of Missouri will be working with him in his office for at least a year. He also mentioned that the Sixth Councilor District will meet in Warrensburg on October 27, with Senator Cason as the guest speaker. An invitation to attend was extended to President Miller.—**Referred to Medical Education and Public Welfare Committee.]**

■ Dr. McAlhany reported that the Eighth Councilor District met in Springfield on September 9 with President Miller and Mr. Alan Bloom of HEW as guest speakers. Mr. Bloom spoke on HMO's and gave the doctors a better insight into what Health Maintenance Organizations are all about. It was a worthwhile meeting. He also reported that Greene County joined its local "Community Organization for Drug Abuse Control" (CODAC) in which Dr. Crawford is very active. This is one of the community organizations composed of civic organizations, churches, PTA's and other business leaders. They have an executive secretary and will get underway about October 1.

Dr. McAlhany reported also that the Woman's Auxiliary of Greene County will sponsor their second Health Careers Fair in October to try to interest younger people in entering paramedical fields.

Dr. McAlhany asked Mr. Gary Schnedler to explain the new brochure developed by Greene County for distribution to all newcomers in the Springfield area. Mr. Schnedler distributed copies to the Councilors. He stated that each member was assessed $35 for a two-year pilot study. He said the brochure is sent to all newcomers from a list obtained monthly from the utilities company. It also is placed in all of the doctors' offices. The doctors receive a plaque to hang in their offices stating that they are members of Greene County Medical Society. Also, a questionnaire is being developed which will be distributed to the members personally so that opinions can be secured on how to improve the county medical society and organized medicine in general. After two years, this information will then be turned over to a Planning Committee for evaluation and to determine what new direction should be taken.

On motion of Dr. Bradshaw, duly seconded, the Council commended the Greene County Medical Society in this endeavor.—**Referred to Miscellaneous Affairs Committee.]**

■ Dr. Bradshaw then brought up the subject of abortions in Western Missouri. He pointed out that a number of Missouri residents are going across the state line into Kansas to have abortions performed and his main concern is the high cost paid by the patients which run from $700 to $900.

After further discussion, on motion of Dr. Cope, duly seconded, it was agreed that a letter be written to the President of the Kansas Medical Society requesting that they look into this matter and that a copy of the letter also be sent to the GYN Society in Wichita, Kan.

Dr. Stricker reported that the Ninth Councilor District will hold its district meeting on October 20 in Salem.

Dr. Hansbrough reported that the Tenth Councilor District Meeting will be held in conjunction with the Southeast Missouri Cancer Conference on November 21 in Poplar Bluff. He also reported that there are two cardiac care units in his area: one has been in operation for about ten years and provides a total of six beds; the other unit, which accommodates two patients, is in a hospital in a smaller town.

Dr. Hansbrough stated that he thought the Council District reports were good and most interesting.—**Referred to Medical Education and Public Welfare Committee.]**

DEANS' REPORTS

■ Dr. Mayer, University of Missouri-Columbia, stated he was very interested in some of the discussions he had heard from the Councilors.

Dr. King, Washington University, said it was a pleasure to be there and it was the most interesting reporting he had heard. He stated that he thought Dr. Fisher had a good suggestion and hoped somebody would put it to good use.

Dr. Noback, University of Missouri-Kansas City, reported that the new Kansas Medical School had 40 students in the first year of the six-year program combining Baccalaureate and M.D. degrees; 18 in the second year and 36 regular medical students, for a total of 94 students for whom they are responsible. He said that they are all busy with three weeks in their first full year. He said things are going very well and appreciated the help received from the Council and Officers. He stated that the 36 medical students include 23 who finished their regular college medical work, 13 students with advance training in a variety of subjects, four Ph.D.'s, one student with advance training from Dr. Mayer's program, several with a year in dental school and another with a year in the osteopathic school in Kansas City.

There are eight women and 28 men students. He stated that the school set up a two-day orientation program for these 36 students. They toured Hospital Hill, which is a very impotrant part of their training, and other related hospitals in the area. On the second day, they took a bus tour of the whole community, since medicine is a total part of the community. Dr. Stricker commented that it appears that the Kansas City Medical School is off the ground to a good start.—**Referred to Medical Education and Public Welfare Committee.]**

AD HOC COMMITTEE ON 114TH ANNUAL SESSION

■ Mr. Fox gave a brief report on progress to date on arrangements for the 114th Annual Session at the Muehlebach Hotel in Kansas City on April 6-9, 1972, in the absence of Chairman Dr. Kinsella of the Program Committee. Mr. Fox stated that the program committee agreed on a new format utilizing the specialty representatives serving on the MSMA Interspecialty Commission. He said 17 of the 22 specialty organizations accepted invitations to sponsor programs, some of them joining together for programs. At this point, they have confirmation that they have officially accepted the day and time slots assigned to them. There will be five or six concurrent sessions. He stated that it will be interesting to see how many of their own members will attend (also the age factor) now that they are planning their own programs and running it themselves. He stated that the opening session will be on Peer Review and the Health Care Foundation will develop the program. The opening sessions on Saturday morning will be on Comparative Costs of Medical Care and on HMO's.—**Referred to Medical Education and Public Welfare Committee.]**

■ After discussion, Dr. Cope mentioned that after the last meeting, Dr. Fisher suggested we officially involve the medical students in medicine. Dr. Cope said he would like to suggest that the MSMA invite the medical students to attend the state meeting as guests and prior to the House of Delegates, a caucus room be procured for these students. The students should be assigned one delegate per medical school and this delegate should be an official delegate and sit with and vote with the delegation in which his school is located.

It was pointed out there was only one objection to this idea, which is that we do not want to be in a position of organizing the medical students.

After further discussion, on motion of Dr. Fisher, duly seconded, it was agreed to refer this item to the Committee on Long Range Planning for further study. **—Referred to Constitution and Bylaws Committee.]**

■ Dr. Franklin mentioned that he spoke to Dr. Kinsella, Chairman of the Program Committee for the Annual Session, and congratulated him on the proposed program. He said Dr. Kinsella told him Mr. Fox was to be complimented for handling all the details.

On motion, duly seconded, the Council accepted the Report of the Ad Hoc Program Committee on the 114th Annual Session.—**Referred to Medical Education and Public Welfare Committee.]**

AD HOC COMMITTEE ON HEALTH MANPOWER

■ In the absence of the Chairman, Dr. Worley, Mr. Fox reported for the Ad Hoc Committee on Health Manpower. He stated that discussion pointed up the need for a mechanism to solve problems of mutual interest between medicine and nursing. The Missouri Nurses Association submitted a list of six such problems for consideration, as follows: (1) Statement on starting blood transfusions without physician in attendance; (2) Advisability of adding drugs to IV fluids (should this be done by pharmacist or nurse); (3) Should a nurse do indotracheal intubation; (4) Should a nurse give cardiac drugs directly into cardiac muscle; (5) Upon patient's admission into hospital, can a routine blood, urinalysis and Chest X-ray be done without doctor's orders; and (6) In chronic hospitals and nursing homes, due to shortage of doctors, nurses have been called upon to pronounce patients dead. Nurses do *not* want the responsibility.

It was stated that if the medical profession would like to continue these services performed by the nursing profession, a proper directive should be issued with corresponding guidelines written by the physicians for the nurses. It was suggested that an Advisory Committee be formed to work with the Ad Hoc Committee on Health Manpower to study the six items referred to above along with other problems as they arise in the future.

After further discussion, on motion of Dr. Miller, duly seconded, it was agreed that an Advisory Committee be established to be composed of a representative of the Missouri Nurses Association; Missouri League for Nursing, Inc.; Missouri State Board of Nursing; Missouri State Association of Licensed Practical Nurses; the Missouri Federation of Licensed Practical Nurses, and the Missouri Hospital Association, with the recommendation that, in view of the projected changes in the Nursing Act, that this committee work closely with the Legislative Committee and that the problem in the

President Gerald L. Miller *(at the rostrum)* introduces MSMA members who were honored at the Presidents' Banquet on April 8 for completing 50 years in the practice of medicine. Fifty-Year Pins were presented to *(standing, left to right)* Drs. Eugene C. Black, Kansas City; Fred Irwig, Kansas City; Michael Bernreiter, Kansas City; Pierce J. Reilly, St. Louis; V. Rogers Deakin, St. Louis; Gilbert L. Chamberlain, Boonville; Theodore H. Hanser, St. Louis; Lasley E. Huber, Moberly; and Solon P. Harris, St. Louis. Drs. Robert C. Haynes of Marshall and Winfred L. Post of Joplin were unable to be present for the ceremony.

First Councilor District, which Dr. Martin reported, be placed on the agenda when the Advisory Committee meets.

On motion, duly seconded, the report of the Ad Hoc Committee on Health Manpower was accepted.—**Referred to Medical Education and Public Welfare Committee.]**

APPROVAL OF COUNCIL MINUTES

■ The Chairman requested approval of the minutes of the last Council meeting held on June 5-6, 1971. On motion, duly seconded, the minutes of the previous Council Meeting were approved as distributed.

PUBLICATIONS COMMITTEE

Dr. Finnegan, Chairman of the Publication Committee, indicated that at the spring meeting of his Committee, they had advised that a revision of the classified advertising rates be made up to a more generally accepted level and this has been done. He said that his Committee also voted to charge the members for any classified ads which they request to be run in Missouri Medicine and asked if the Council had any serious objection to this.

On motion of Dr. Gunn, duly seconded, it was agreed that this be made a policy of the Publications Committee.

Dr. Gulick brought up the subject of possible advertising in the roster issue of Missouri Medicine, indicating that this is the one issue most physicians keep and that possibly a premium could be put on the advertising in this particular issue. Mr. Carroll stated this could be done, but it might take away from advertising in the other July issue. On motion, duly seconded, the matter of possible advertising in the roster issue of Missouri Medicine was referred to the Publications Committee.—**Referred to Reports of Officers Committee.]**

PROJECT REGARDING PHARMACEUTICAL SERVICES IN MISSOURI

■ Mr. Carroll reported that a letter had been received from the University of Missouri-Kansas City, School of Pharmacy, seeking support for their project, "Improvement of Pharmaceutical Services in Missouri's Rural Health Care Institutions," to be funded by the Missouri Regional Medical Program. The primary objective of this project is to improve pharmaceutical services to patients in hospitals and nursing homes. The initial phase will be to conduct an evaluation of pharmaceutical services in selected institutions. Following this evaluation, the information will be used as a basis for implementing a planned course of action to accomplish needed improvements. A Board of Advisors will be formed and they have asked the MSMA to appoint someone to serve on this Board.

Mr. McIntyre indicated that he had checked with the State Pharmaceutical Board, which is familiar with this project and, also, the Pharmaceutical Association and they see no objection to it.

On motion, duly seconded, it was agreed that MSMA support this project and that a member be named to their Board of Advisors. Motion carried.—**Referred to Miscellaneous Affairs Committee.]**

AMA DELEGATES' REPORT

■ Dr. Neilson reported on the June meeting of the AMA in Atlantic City. Ninety-eight resolutions were considered. The Missouri Delegation introduced Resolution #6, "Restrictions on the Use of Stimulant Drugs." This resolution, along with two other resolutions on drug abuse, was considered by the House and a substitute resolution covering the main points of the three resolutions was passed.

Resolution #98, "Drug Addiction in the Armed Forces," also was introduced by the Missouri Delegation. The reference committee discussed this resolution at length and recommended that the resolves be considered as separate questions. Dr. Neilson said that he felt our resolutions fared quite well.

Dr. Neilson indicated that President Nixon spoke and his speech was widely distributed. He mentioned the advertisements in the metropolitan newspapers which Mr. McIntyre had alluded to earlier.—**Referred to Miscellaneous Affairs Committee.]**

■ One of the prime concerns at the AMA meeting was the loss of membership. This loss of membership produces a loss of many dollars in dues a year; to operate all of its programs, AMA may have to dip into reserves.

Dr. Nielson stated that the AMA report on Medical Manpower and Education contains a statement that the U. S. may be headed for a surplus of physicians, while everyone is discussing the lack of physicians. The report also discusses maldistribution of physicians and concludes with a plea for "basic public care"—physicians who give comprehensive personal care, i.e., family physicians.

Dr. Benoit was on the ballot, along with Willard Camalier of Washington, D. C., for the Councilor on Medical Service to replace Charles Ashworth. The Missouri Delegation worked hard on this project. However, Dr. Benoit lost by a small margin.

Dr. Neilson thanked the Delegation, the officers and staff for their hard and diligent work at the AMA Convention.

On motion of Dr. Gunn, duly seconded, the Council accepted the AMA Delegates' Report with commendation.—**Referred to Reports of Officers Committee.]**

COMMISSION ON PUBLIC AFFAIRS

■ Dr. Bowles, Chairman of the Commission on Public Affairs, gave the following report. A meeting of the Commission was held on August 8, 1971 in Columbia. Several Ad Hoc Committees have been set up under this Commission, namely, Ad Hoc Committee on Aging —Dr. Henry Guhleman, Chairman; Ad Hoc Committee to Develop Public Affairs Conference—Dr. Hubert Ritter, Chairman; Ad Hoc Committee on Emergency Medical Care—Dr. Allen Klippel, Chairman; Ad Hoc Committee on Alcoholism and Drug Abuse—Dr. Joseph Kendis, Chairman.

The Commission discussed the County Society Officers Conference conducted each January. The Commission recommends to the Council that the name of the meeting be changed to Public Affairs Conference and that a format be developed to feature issues of current concern and to involve more young physicians.

Discussion was held by the Commission regarding the orientation conference held in conjunction with the Annual Meeting. The Commission recommends to the Council that this orientation session should also feature issues in medicine and involve new members, interns, residents and medical students. The consensus of opinion was that two such meetings a year—one in St. Louis and one in Kansas City—should be developed. An effort should be made at the Public Affairs Conference to promote the orientation conferences. Dr. Ritter's Ad Hoc Committee also will develop the program for the orientation program.

Dr. Bowles stated that his Commission recommended that Resolution #24, concerning labeling of prescription drugs, be referred to the Legislative Committee for implementation.

The Commission discussed Resolution #32 concerning ambulance licensing and other problems in the field of emergency medical care. Dr. Klippel's ad hoc committee will work in the field concerning emergency medical care facilities, seeking ways to provide better distribution of such facilities.

Dr. Bowles said that the Commission discussed ways to make information about Health Maintenance Organizations and other methods of health care delivery available to the medical profession and to the public. Dr. Miller discussed the current HMO informational conferences being held around the state with MSMA as a cosponsor.

Discussion was held by the Commission regarding the Viet Nam veteran drug problem. The decision was made to contact Congressman Durward Hall and ask him to keep the Commission informed concerning new developments and findings of a Congressional Committee of which he is a member.

The Commission on Public Affairs discussed Resolution #33, concerning stimulant drugs, which was adopted by the MSMA House. Dr. Neilson reported that the AMA had accepted a portion of the Missouri resolution.

Dr. Miller stated that he felt the MSMA should establish an ongoing program in the field of drug abuse which would include cooperation with governmental agencies and others. Dr. Bowles asked what the position of MSMA should be with regard to drug abuse. He indicated that present work in this field in Missouri is being carried out by several organizations. However, he felt this was probably fragmented and largely ineffective and mostly nonphysician directed.

Dr. Bowles indicated that he felt that MSMA should consider the possibility of a physician-directed statewide program and proposed consideration of the development of an MSMA-sponsored task force approach. He suggested setting up some six task forces in the following categories: (1) Administration of justice; (2) Legislative aspects; (3) Educational aspects—directed toward dissemination of public information and education of physicians in the program; (4) Treatment of drug abuse; (5) Directed towards research in the area; and (6) Addressed to youth and its problems and its sociological implications.

Dr. Bowles stated that Dr. Neilson reported to the Commission concerning recent activities in the field of Environmental Health. The Commission also discussed the increasing problem of venereal disease in the state and a need for an education program in the schools. He said that Dr. Neilson would report to the Council later in the meeting regarding environmental health and also V.D.

Discussion followed regarding the report of the Commission on Public Affairs. Dr. Hansbrough stated that he felt many physicians would not be able to attend the orientation sessions which are proposed for Kansas City and St. Louis and suggested that three such conferences be held. It was recommended by the Council that three orientation conferences be held instead of just the two as recommended by the Commission and that the third probably should be held in Columbia so that the medical students, interns, residents, etc. from the Medical School could attend.

Dr. Mayer stated his interest in the drug abuse problem and the task force concept and indicated that there are many resources that are available throughout the state which have been actively engaged in work in the drug abuse field. He volunteered the cooperation of some of the University of Missouri Medical School personnel who are well versed on this subject.

Dr. Gulick suggested involvement of some of the younger physicians in this drug abuse program.

Dr. Hetlage moved that the Council support the

Commission's task force concept on drug abuse. Motion duly seconded and carried.

On motion, duly seconded, the Council approved the report of the Commission on Public Affairs as amended to include three orientation conferences.

AD HOC COMMITTEES ON ENVIRONMENTAL HEALTH AND VD CONTROL

Dr. Neilson reported that he has been in contact with Dr. Donnell, Director of the Division of Health's Bureau of Communicable Diseases, regarding VD problems in this state. Dr. Donnell was gratified with the concern of the MSMA regarding this problem and expressed the desire of the Division of Health to increase VD instruction in medical schools and osteopathic schools, as well as in our public school system and to promote the education of the general public in regard to the mounting severity of the problem. Dr. Donnell has asked for a meeting, and Dr. Neilson stated that he had sent Dr. Donnell names of several physicians he felt should meet and plan a realistic approach. Dr. Neilson stated that, at present, they are working on organizing a meeting of health commissioners, assistant health commissioners, VD controllers and health officers from cities and large towns throughout the state. He said that he felt all financing will be through the Division of Health or through regional health planning agencies.

Dr. Neilson distributed a discussion of "Environmental Health and the Medical Profession" which he helped prepare for the Council on Environmental and Public Health of the AMA.

Dr. Neilson reported that on October 5, the citizens of Missouri will vote on five constitutional amendents proposed by the 76th General Assembly. Proposition #3 is a $150 million bond issue designed to assist cities, counties and sewer districts in abating water pollution in the state of Missouri. This bond issue would generate $600 million in local, state and federal funds for the construction of sewage treatment plans, interceptor sewers and outfall systems over the next four years. It will be paid for by general revenue.

Dr. Neilson indicated that he serves the Water Pollution Board as a member of the Executive Committee working on this proposition and asked the Council to formally support the effort by passing a resolution supporting the Missouri Water Pollution Board for the passage of Proposition #3 and by sending this resolution to the Governor, the Water Pollution Board and the Department of Health of Missouri.

On motion of Dr. Miller, duly seconded, the following resolution was approved by the Council:

Whereas, Clean, potable water is necessary for human life, and

Whereas, Throughout Missouri, our water supplies are increasingly being polluted by industrial waste, human and animal waste and agricultural fertilizers and poisons, and

Whereas, An opportunity is being presented to the people of Missouri to solve this problem by voting "YES" on Proposition #3 on October 5, 1971, in support of a plan to save millions of dollars in assisting counties, cities and metropolitan sewer districts in abating water pollution in the State of Missouri, and

Whereas, Contaminated, polluted water, which has been cleansed only partially before being reused in many communities, is a carrier of disease organisms, which may cause a variety of diseases in a user of this water, therefore, be it

Resolved, That the Missouri State Medical Association, on the advice of its Commission on Public Affairs and its Ad Hoc Committee on Environmental Health, hereby supports Proposition #3 to the fullest. Clean water in the state of Missouri is a medical necessity, and passage of Proposition #3 will expedite steps toward bringing about a healthier citizenry in the state.

Dr. Gunn asked if there would be any placards available for physicians' offices asking support of Proposition #3 and Dr. Neilson indicated that he felt he could obtain some.

Dr. Neilson also reported that he has been appointed to the Steering Committee of the Citizens Committee for Conservation. He submitted a resolution for Council consideration to be sent to the Governor, Conservation Commission and Conservation Federation regarding support of the Conservation Commission in its efforts to expand the state's recreational facilities in all respects.

Considerable discussion followed regarding the pros and cons of passing such a resolution. Dr. Peterson stated that he felt property rights of individuals might be involved here.

Dr. Hansbrough stated that he felt Councilors should receive information of this nature prior to the Council meeting so they can study them and make an intelligent decision.

It was moved that this resolution be tabled until the next Council Meeting and that each Council member have a copy of the resolution. Motion seconded and carried.

On motion of Dr. Gunn, duly seconded, the reports on Environmental Health and VD Control were accepted with commendation.—**Referred to Miscellaneous Affairs Committee.]**

AMA MEMBERSHIP

■ Mr. Norbeck presented statistics regarding membership in AMA. He indicated that there are 334,028 M.D.'s in the United States, but only 243,438 are practicing and eligible to be dues-paying members of AMA. Of these 243,000 physicians, a total of 167,272 or 68.7% are now dues-paying members of the AMA. Physicians who are exempt from dues include those in federal service; are inactive due to being 70 years of age or over; are nonfederal interns and residents or doctors experiencing financial hardship due to illness.—**Referred to Reports of Officers Committee.]**

COMPREHENSIVE HEALTH PLANNING

■ Dr. Kelley reported that he was appointed to the Governor's Advisory Council on Comprehensive Health Planning on recommendation of MSMA and that he became Chairman of the Council last spring. He stated that he is the only M.D.-member at the present time who is in the private practice of medicine. He called attention again to the lack of interest and physician involvement in these programs. He indicated that most of the physicians have no idea of what CHP is and what it hopes to do. He strongly urged the Councilors to try to get the physicians involved in their respective areas and exert influence in these programs.

Dr. Kelley spoke to the Council regarding the possibility of the State Medical Assocation volunteering supplementary funding to the State Advisory Council, so that when the Legislature meets again, he would like to report that MSMA is willing to provide supplementary funds, in addition to what the state can provide. He said they plan to approach other organizations, such as the Hospital Association, Osteopathic Association and, possibly, some insurance companies in this regard and might possibly get enough to guarantee more federal funds to really do a good job. He stated that the money is needed mostly in outstate Missouri.

Dr. Hansbrough brought up the subject of CHP Task Forces in the state. Dr. Kelley stated that there are four which have been active in the state (1) to study accessibility of health services in Missouri by checking throughout the state to determine what the needs really are; (2) to accumulate material on environmental control; (3) one involved in developing a state center for health statistics—not only vital statistics, but information about the distribution of physicians, nurses and all paramedical personnel; (4) Task Force on Emergency Medical Care, particularly ambulance service.

Dr. Kelley reported that they plan to have a meeting this year that will involve not only the funeral directors, but other people who provide ambulance service, helicopter service, etc., and to meet with the American College of Surgeons to work out a basic plan and to try to see what would be the best way to attack this problem of ambulance service.

Dr. Hetlage stated that studies by the CHP should be locally oriented.

The Chairman thanked Dr. Kelley for his report. No Council action was taken at this time on the report.—**Referred to Resolutions Committee.]**

APPOINTMENT OF BUDGET COMMITTEE

■ The Chairman then appointed the following members the Council to the Budget Committee for 1972: Drs. Charles A. Gulick, Chairman; Gerald L. Miller, Walter T. Gunn, James C. Cope, Howard McAlhany and E. A. Stricker.

COMMITTEE ON ARRANGEMENTS FOR 1972 ANNUAL SESSION

The Chairman then appointed the following members of the Council to serve on the Committee on Arrangements for the 1972 Annual Session: Drs. Chandler, Martin and Bradshaw. Dr. Chandler will serve as Chairman. **—Referred to Reports of Officers Committee.]**

AD HOC COMMITTEE ON CONTINUING MEDICAL EDUCATION

■ Dr. Paul Young presented the report of the Ad Hoc Committee on Continuing Medical Education. He stated that they are in the process of evaluating the MECO Summer Job Program by contacting the students who took part in the program, which was generally accepted as favorable. Dr. Young stated that the committee recommends that the Council approve continuation of the MECO Program for at least one more year and that the hospitals in Missouri be polled to determine if financing was the major impediment to their participation in the program. If financing was the problem, the committee recommends that outside sources of funding be sought so that the salaries of the students could be funded by some appropriate source with the hospital providing room and board and the educational experience.

After discussion, on motion of Dr. Hetlage, duly seconded, the Council approved continuation of the MECO Program.

Dr. Young then discussed the problem of implementation of its original program approved by the Council regarding the two-phase development of an organized continuing medical education program in the state. One of the problems was the matter of compulsory versus voluntary participation by the physician, and the Committee agreed to attempt to develop a program on a voluntary basis within a reasonable length of time. It was noted that at least ten or 12 state medical associations are currently considering or are implementing programs which require continuing medical education credit for continued membership in their societies. After discussion, on motion of Dr. Miller, duly seconded, it was agreed that the Ad Hoc Committee on Continuing Medical Education develop a voluntary program and that this committee provide a recommended prospectus that details proposed continuing medical education credit program to be presented to the Council for further consideration.

Dr. Young then called attention to three specific items outlined in the report for the development of an organized effort in continuing education, which are as follows:

1. Appoint directors in each Councilor District. This director would have to make a commitment for a period of time, probably three years, as a continuous appointment. He would be appointed by the District Councilor and then would be appointed to the Ad Hoc Committee.
2. Those members that are presently on the Ad Hoc Committee would remain and could be the district directors in their own district.
3. The representatives of the medical schools would remain on the Committee and function as they have in the past.

Dr. Young pointed out that the above three items would give direct input from the Councilor District into the organization and implementation of the plan.

After further discussion, on motion of Dr. Miller, duly seconded, the Council approved the report of the Ad Hoc Committee on Continuing Medical Education.—**Referred to Medical Education and Public Welfare Committee.]**

COMMISSION ON MEDICAL ECONOMICS

■ In the absence of Dr. Wiegand, Chairman of the Commission on Medical Economics, Third Party Medicine and Governmental Relations, Dr. Peterson gave a brief report regarding Commission activities. The Commission held a meeting on July 25 in Jefferson City and made the following disposition of resolutions passed by the 1971 House of Delegates and that had been referred by the Council for information, study and recommendations.

Resolution #4—"Third Party Carriers Notification Practices Concerning Fees"—The Commission referred this resolution to the AD Hoc Blue Cross Committee.

Resolution #13—"Method of Reimbursement to Hospitals by Blue Cross"—The Commission referred this resolution to the Ad Hoc Blue Cross Committee.

Resolution #14—"Subscriber Representation on Blue Shield Boards"—The Commission referred this resolution to the Ad Hoc Blue Shield Committee with the following instructions: "Although the previous Ad Hoc Blue Shield Committee had recommended selection of subscriber members of the Board of Trustees of both plans through County Medical Societies, the House of Delegates rejected this concept, and it is the feeling of the Commission that the new Committee should study this resolution and, hopefully, develop a new effective mechanism for the election of subscriber members of the Boards."

Resolution #20—"Outpatient Medicare Coverage of Patients with Emotional Problems"—The Commission feels that it does not fully understand this resolution and needs more information. Dr. Cowdry and Dr. Wolfgram of St. Louis will be invited to the next meeting to explain the current problems of outpatient psychiatric care under Medicare. The Commission further directed staff to contact other nearby states concerning their policy on this subject.

Dr. Wiegand appointed two ad hoc committees: (1) Ad Hoc Blue Cross Committee, Dr. Victor B. Buhler, Chairman and (2) Ad Hoc Blue Shield Committee, Dr. Charles W. Chastain, Chairman.

The Commission discussed material on RVS that had been obtained from the AMA. Twenty-one state associations have now established RVS's for their organizations.

Dr. Peterson reported on the activities of the Ad Hoc Committee on Negotiation of Professional Fees. He indicated that he and Mr. Noble recently had a meeting in the office of the General Counsel of the AMA to obtain information available from their files on this subject. This Ad Hoc Committee hopes to have a mechanism for fee negotiation developed for presentation at the next meeting of the House of Delegates. The Committee is working to have this mechanism established within the framework of MSMA. Dr. Peterson stated that a resolution may be taken to the AMA regarding legislation at a national level which would enable doctors to organize and negotiate as other groups do.

On motion, duly seconded, the report of the Commission on Medical Economics, Third Party Medicine and Governmental Relations was accepted.—**Referred to Resolutions Committee.]**

■ Dr. Miller indicated that the Singing Doctors of Greene County will entertain for approximately 30 to 40 minutes at the Saturday evening function for the 1972 Annual Session. He stated that the scientific sessions seem to be shaping up quite well and it is his feeling that our social functions should be of the caliber that will attract physicians and their wives throughout the state. He asked the Council to contact Dr. Chandler, Chairman of the Committee on Arrangements, regarding suggestions they might have for the Saturday night program.

Dr. Miller asked the Council for approval of his suggestion made at the last Council Meeting that a Journalism Award be given at the Annual Session to a deserving individual or individuals and suggested that this be referred to the Ad Hoc Committee on Communications of which Dr. Franklin is Chairman. On motion, duly seconded, the Council approved of this.

Dr. Miller reported to the Council that he had received a letter from Dr. Rikli of the MRMP regarding possible co-sponsorship of a state-wide meeting in 1972 concerning "Hospital Organization for the 70's." This request was precipitated by a seminar which was held in Kansas City in February, 1971 and, apparently, was well received. Discussion followed, and it was suggested by the Council that possibly three or four regional meeting would be better attended than one statewide meeting, if funds are available. It was pointed out that the Osteopathic Association and the Hospital Association also have been asked to cosponsor such a seminar. On motion of Dr. Martin, duly seconded, it was agreed that the matter of the seminar program be explored further and that this be referred to the Commission on Public Affairs.

Dr. Miller stated that he felt MSMA should be proud of their AMA Delegates and Alternates and that these physicians should be utilized on programs to a much greater extent throughout the state. He said these physicians are very knowledgable and that the Association should utilize their capabilities.—**Referred to Medical Education and Public Welfare Committee.]**

NEXT COUNCIL MEETING

■ Mr. McIntyre proposed that the next Council Meeting be held on December 11 and 12, 1971 with the Budget Committee meeting on Friday, December 10. On motion of Dr. Bradshaw, duly seconded, it was agreed that this December 11-12 Council Meeting be held at the Lodge of the Four Seasons at the Lake of the Ozarks.

Mr. McIntyre then proposed that the Public Affairs Conference and Council Meeting be held on January 28, 29 and 30, 1972 at the Ramada Inn in Columbia. The Council would meet on Friday, January 28 and Saturday morning, January 29. The Public Affairs Conference would convene Saturday afternoon and run through Sunday morning, January 30. This proposal was approved.

It was agreed by the Council that the June Council Meeting would be held on June 3 and 4, 1972 at the Ramada Inn in Jefferson City or Columbia.

Dr. Matthews asked the Council to give thought to making the Council meetings, where possible, a one-day meeting. He stated that he was quite certain this would not be possible in all cases, but felt that an effort should be made in this direction. He said that possibly the June meeting might be the one in which this could be tried.

The meeting adjourned and the Chairman called for an executive session.—**Referred to Reports of Officers Committee.]**

Meeting of Dec. 11-12, 1971

E. A. Stricker, M.D., St. James, Chairman, called the meeting to order. Those present were Drs. Stricker, John N. Martin, St. Joseph; Lysle M. Bach, Hannibal; Max S. Franklin, St. Louis; Louis P. Hetlage, Troy; James C. Cope, Columbia; William D. Bradshaw, Clinton; R. Allen Chandler, Kansas City; Howard McAlhany, Springfield; E. T. Hansbrough, Poplar Bluff; Gerald L. Miller, Kansas City; Walter T. Gunn, St. Louis; Charles R. Gulick, St. Louis; John I. Matthews, Jefferson City; Cyril J. Costello, St. Louis; David N. Kerr, St. Louis; J. Loren Washburn, Versailles; Stanley S. Peterson, Springfield; Arthur W. Neilson, St. Louis; William D. Mayer and William C. Allen, Columbia; George E. Thoma, St. Louis. Messrs. John W. Noble, Kennett; James Hughes and Harry Powell, St. Louis; Tim Norbeck, St. Louis; Allen D. Smith, Kansas City; Hollister S. Smith, St. Louis; Ray McIntyre, Tom P. Fox, Bob Carroll and Royal O. Cooper, Staff.

The chairman welcomed all present. Dr. Gunn moved that a get-well card be signed by all present and forwarded to Mrs. Max Franklin who recently suffered severe burns in a furnace explosion. The card was obtained and forwarded as instructed.

REPORT OF THE COMMISSION ON INTERSPECIALTY MEDICINE

■ Dr. Costello, Chairman, reviewed the minutes of the meeting of the Interspecialty Medicine Commission which was held in St. Louis on October 10. Copies of the minutes were distributed to all present.

Dr. Costello stated that the Commission members had attended meetings faithfully and participated well and that Council directives were taken seriously. He stated that two principal items were charged to the Commission: (1) Health Care for the Poor and (2) Physician Assistant. The Chairman said that considerable time had been spent on research prior to the meeting with people interested in the field of health care for the poor and that the most helpful information had been received from the AMA. He said the AMA had developed a committee to study the health care needs of the poor and recommended the six points included in the minutes which the Commission agreed upon, namely Short-Term Goals. It was pointed out that you cannot define the poor. They are in all communities, and the best approach to the problem appears to be one in which a local medical society committee is designated and charged with the problem of dealing with representatives of the poor and with the agencies working in this field. Also this committee should be affiliated with a state medical society committee similar to the one set up by the AMA. This state committee should offer assistance to these committees and work with the AMA committee.

After discussion, on motion of Dr. Miller, duly seconded, it was agreed that the Chairman of the Interspecialty Commission be asked to appoint an Ad Hoc Committee on Health Care for the Poor. Motion carried. This ad hoc committee is to work for implementation of a Health Care for the Poor Program in Missouri as outlined in AMA's Short Term Goals #1 through #6.

On the matter of Physician Assistants, Dr. Costello said a great deal of study had been made of this subject over the past three years. Dr. Stoneman has chaired the Ad Hoc Committee which developed recommendations as summarized in the report of the Ad Hoc Committee of September 17, which scheduled a conference with the Commission on Medical-Legal Affairs and the Committee on Legislative Affairs. After discussion, it was agreed to make the following recommendations to the Interspecialty Commission and which were approved by the Commission:

1. That the Interspecialty Commission recommend to the Council that the statewide survey described on pages 673, 674 and 675 of the September, 1971 issue of Missouri Medicine has established that a demand exists for physician assistants among the private practitioners of medicine in the state of Missouri and that establishment of a training program or programs is justified.

2. That the Interspecialty Commission recommend to the Council that the MSMA not support attempts to fix the role and functions of the physician assistant legally by licensure mechanism, but that physician assistants be certified upon satisfactory completion of an approved training program and function only under the responsibility and authority of a licensed practitioner of medicine who would then define the role of the physician assistant and assume responsibility for his acts.

3. In connection with certification upon completion of an approved training program, the Ad Hoc Committee recommends that the Interspecialty Commission propose to the Council that the MSMA take leadership in establishing minimal standards for approval of training programs for physician assistants in Missouri and that these standards include, among other things, satisfactory completion of a preceptorship of not less than six months under the supervision of a practicing licensed physician.

4. The Ad Hoc Committee recommends the policy that mechanisms for deployment of physician assistants to areas most in need of additional health manpower be devised and that the obvious advantages of the preceptorship component of the training program be used to the maximum extent possible in this connection.

5. The Ad Hoc Committee recommends that the Interspecialty Commission or others appointed by the Council seek clarification of the position of malpractice underwriters on the cost increases for malpractice insurance to be anticipated by physicians employing physician assistants from approved training programs.

Discussion followed regarding the above-mentioned recommendations. It was the consensus of opinion that the recommendations be accepted for filing with the exception of No. 3, which is to be deleted. On motion of Dr. Miller, seconded by Dr. Martin, it was agreed to accept this portion of the report for filing, with the deletion of No. 3. Motion carried.

After further discussion, on motion of Dr. Martin, duly seconded, the report of the Interspecialty Commission was approved with the matter of the physician assistant accepted for filing as amended.—**Referred to Miscellaneous Affairs Committee.]**

REPORT OF THE AD HOC COMMITTEE TO STUDY NEGOTIATION OF PROFESSIONAL FEES

■ Dr. Peterson gave a brief resumé of the progress to date on the work of his Ad Hoc Committee to Study the Negotiation of Professional Fees. He stated that he made a trip to Chicago with Mr. Noble recently for a discussion with Mr. Hirsh, General Counsel for the AMA. It was suggested that possibly a new resolution could be prepared for introduction to the AMA House of Delegates in December; however, he stated that this was not possible as they are not ready as yet. The work is going forward and, at this time, it appears as though they will be in a position to present their report to the MSMA House of Delegates in April, 1972. Legal Counsel will provide the necessary research required at an early date to hopefully enable the Committee to present a mechanism for negotiation to the MSMA House of Delegates. A mechanism to be set up within the present MSMA structure to negotiate fees is a basic concept of the committee.

After further discussion, on motion of Dr. Cope, duly seconded, the report of the Ad Hoc Committee to Study Negotiation of Professional Fees was accepted with commendation and the Committee was urged to move forward with full speed.—**Referred to Resolutions Committee.]**

REPORT OF THE EXECUTIVE SECRETARY

■ Mr. McIntyre congratulated Dr. William C. Allen of Columbia who received the 1971 Annual Award for Outstanding Service to Medicine from the Missouri Academy of Family Physicians.

Mr. McIntyre referred to a letter which Dr. Gunn had received from General American Life stating that they have an opening in the Medical Department for a medical consultant at a salary of $20,000 to $25,000 per year. It was reported that other association officers and county societies received a similar letter.

Mr. Hughes of St. Louis Blue Shield stated that Blue Shield is in the market for a full-time medical director. He said that they have a part-time medical director, but the volume of activities for reviewing cases has increased so drastically that a full-time medical director is needed. He said any suggestions from the Councilors would be welcomed.

Mr. McIntyre then requested Legal Counsel to give a brief report on the law suit regarding the Health Care Foundation in which MSMA is involved. Mr. Noble stated that the case is pending in St. Louis County. Specific legal motions have been filed to show cause for dismissal. A hearing has been held and the motions to dismiss were recorded. He stated that the motions to dismiss are under consideration and further actions depend on the motions that are sustained.

Mr. McIntyre said there were two items that were not on the agenda. One is the problem of getting exhibitors for our annual meeting, which is becoming more difficult each year. The question is could we eliminate exhibits or, perhaps, request prospective exhibitors to sponsor a speaker or give a cash grant for promotion of the entire scientific program with proper acknowledgement.

The second item was the matter of renewing the lease on present MSMA office space which expires on April 1, 1973 or consideration of alternatives.

On motion, duly seconded, the Executive Secretary's report was approved with further consideration to be given to the latter two items mentioned in his report.

REPORT OF THE TREASURER

Dr. Gulick presented the Treasurer's Report, which was distributed to the Council and Officers. He reviewed the figures shown in the Treasurer's Account, minus the accounts payable in the amount of $20,938.87, which left a balance on hand of $69,803.97 as of Dec. 1, 1971. This does not include the Investment Account. On motion of Dr. Gunn, duly seconded, the Treasurer's Report was approved.

REPORT OF THE BUDGET COMMITTEE

The Budget Committee met on Friday afternoon, Dec. 10, 1971, prior to the Council Meeting on Saturday, with all members present. The Committee reviewed the material presented which showed Exhibit A—Actual Income through Oct. 31, 1971; Expected Total Income for 1971; Income Budget for 1971 and Estimated Receipts for 1972. Exhibit B—Actual Expenditures through Oct. 31; Estimated Expenditures for 1971; Budget for 1971 and Proposed Budget for 1972. Exhibit C—Actual Meeting and Committee Expenses through Oct. 31, 1971; Estimated Expenses for all of 1971; and Proposed Budget for 1972. A breakdown for the year 1971 also was included. Dr. Gulick pointed out that the budget outlook for 1971 is good and the budget proposals for 1972 are practical and within anticipated income. The following proposed budget was approved for 1972:

Salaries	$122,340.00
Furniture & Fixtures	500.00
Office Rent & Lights	7,700.00
General Expense	3,500.00
Office Supplies	3,300.00
MSMF Assessment	37,765.00
Postage	3,700.00
Journal Expense	44,000.00
Equipment Rentals & Repairs	2,300.00
Telephone and Telegraph	7,000.00
Pension Expense	23,911.00
Legal & Professional	8,000.00
Taxes Payroll	4,300.00
Travel Expense	5,500.00
Meetings & Committee Expense	36,900.00
Annual Session	17,500.00
Investment Fund	5,000.00
Car Lease & Expense	2,300.00
Total	$335,516.00

It was the recommendation of the Budget Committee that MSMA no longer pay for the Missouri State Medical Foundation expenses, cost of auditing and other expenses, and that the Foundation (Medical Student Loan Program) now pay its own expenses.

On motion, duly seconded, the Budget Committee report was approved.—**Referred to Reports of Officers Committee.]**

REPORT OF THE COMMISSION ON PUBLIC AFFAIRS

■ Bob Carroll of the MSMA Staff presented the program of the Public Affairs Conference which will be held following the Council Meeting at the Ramada Inn in Columbia on Saturday afternoon and evening, January 29 and Sunday morning, January 30. Copies of the program were distributed. All members of MSMA were urged to attend.

On motion of Dr. Gunn, duly seconded, the report of the Public Affairs Commission was approved.—**Referred to Miscellaneous Affairs Committee.]**

NEW ST. LOUIS BLUE SHIELD PROPOSALS

■ Mr. Hughes, President, St. Louis Blue Shield, stated that the Executive Committee of his Board had recently received a request from the Missouri Association of Osteopathic Physicians & Surgeons to place Doctors of Osteopathy on the Blue Shield Board, and he was directed by the Blue Shield Board to ask the Council of MSMA for their opinion and recommendations, inasmuch as MSMA has been the sponsoring organization for St. Louis Blue Shield.

After discussion, Dr. Miller moved that the MSMA Council take the position of recommending osteopathic representation on the Board of the St. Louis Blue Shield Plan to the MSMA House of Delegates. Motion was seconded and carried.

Mr. Hughes then stated that prior to his arrival in Missouri, several of the physicians on the Blue Shield Board had been approached by participating physicians to consider a type of "open panel practice program" which had been adopted in Colorado on an experimental basis. He stated that he reviewed the details of the Colorado plan so he would be in a position to meet with various groups over the state and explain this plan. He said meetings had been held in St. Louis City and County and with representatives of other groups to review the open panel practice program. He stated that if the Councilors felt that Blue Shield should develop this type of program, Blue Shield would like to have representatives from each District meet with them to review such a plan so that the input actually would come from the physicians throughout the state and to get approval of MSMA to offer such a program to Blue Cross and Blue Shield members.

Mr. Hughes said that the program is designed to take care of a comprehensive set of benefits which goes beyond their UCR program. The benefits are primarily on the ambulatory side rather than in-hospital care. Ambulatory services are those which the physicians perform as home and office care, well baby care, related X-ray and laboratory services in connection with patient illnesses. The program is designed on a voluntary physician-participating basis.

Mr. Hughes said that he again would like to have the opportunity, with his staff present, to sit down and review the details and have direction to take the next step, to develop some of the basic benefits in the cost of the program, to meet with representatives from the Councilor Districts regarding the development of this program and to meet again with the whole Council for further consideration. He stated that he had just "scratched the surface" in his presentation.

Considerable discussion followed and Dr. Miller moved that the Council thank Mr. Hughes for his explanation of existing services and recommend approval of the concept of the Open Panel Practice Program and, after the program has been formulated, it be resubmitted for MSMA Council approval. The motion was seconded by Dr. Gunn and carried.—**Referred to Resolutions Committee.]**

REPORTS OF THE DEANS OF MEDICAL SCHOOLS

■ Dr. Mayer, Dean of the University of Missouri-Columbia Medical Center, reported that over the past ten or 11 years the Medical Center has grown in such a fashion that they felt they needed to intensively review what their functions should be. They did initiate a long-range plan which included a review of the implications of regionalization to the Center. Dr. Mayer distributed material relative to the Role, Scope and Mission of the University of Missouri-Columbia Medical Center for the Council's information.

He stated that there are several areas of primary interest at this time. They are (1) Evolution of primary care of the family practitioner which should be rapidly expanded; (2) Terms of outreach effort, the responsibility of trying to be of assistance throughout the state. They plan to get involved in one or two demonstration models; (3) Evolution of the University Hospital and its policies and procedures, patient care responsibilities as served by the hospital and clinics; and (4) Evolution of the health manpower issue itself. What has happened in the area of health manpower, nurses, allied health, etc.? He said that health manpower is not only physicians. We must start to make some decisions within the medical center in terms of what we should be doing, what kind of physicians, more surgeons, primary care, emphasis on expansion—do we need more nurses, what kind, etc.? We are trying to come to some decisions as to how we can change things. For example, how do we get better distribution of our health manpower trained at M.U.?

Dr. Thoma complimented Dr. Mayer on his report. Dr. Thoma stated that in regard to the Physician Assistant, St. Louis University has gone into this program with two types of people involved: one group at VA, joint program of the Junior College District and the VA, limited number and they will be employed within the VA system when needed; the other level is training as pediatric nurses to be used primarily at Glennon Hospital Outpatient Department. He stated that they are not offering certification or a degree, they will give certain credits.

Discussion followed regarding certification or licensure under the State Board of Registration for the Healing Arts or should or should not physician assistants be governed by state law. The consensus of opinion was that licensure is not the answer, but that certification should be considered. Dr. Mayer said that he is definitely for certification, but only if it is done in the proper manner.

Dr. Cope stated that the responsibility for physician assistants is definitely with the physician for whom he works, and if the assistant is licensed, the physician gives up this responsibility. Dr. Cope went on record as saying he thinks the training program should be approved as long as the physician assistant is to be under the supervision of a physician.—**Referred to Miscellaneous Affairs Committee.]**

■ Dr. Thoma reported for the St. Louis University Medical School in the absence of Dr. Felix. Dr. Thoma stated that for a number of years, St. Louis University has been planning a remodeling program to modernize and increase its clinical facilities, teaching facilities and patient care areas. He stated that the bids were $3.5 million over their estimate of $15 million, and he said it would be difficult for them to raise the extra $3.5 million at this time. The new addition will be a specialty referral center.

Dr. Thoma said that Firmin Desloge Hospital will be rejuvenated and rebuilt to provide better rooms and more teaching and nurse stations. The new adjacent building will have diagnostic X-ray, therapy, physical medicine and rehabilitation, which will serve not only Desloge but, also, Bethesda Hospital. The adjacent facilities will be connected to the old building.

The Chairman thanked Drs. Mayer and Thoma for their reports.—**Referred to Medical Education and Public Welfare Committee.]**

APPROVAL OF COUNCIL MINUTES

The Chairman asked for approval of the Council minutes of the Sept. 18-19, 1971 meeting. On motion, duly seconded, the minutes of the previous Council meeting were approved as amended.

REMARKS OF THE PRESIDENT

■ Dr. Miller reported on a meeting of the Division of Health, the State Department of Education and the

MEDICAL JOURNALISM AWARD WINNERS—During the Presidents' Banquet, MSMA President Gerald L. Miller presented plaques and checks to three of the four winners in the MSMA's first competition for newspapers, television stations and radio stations in Missouri in the field of medical and health reporting. Accepting the awards are *(left to right)* Mike Shannon for Radio Station KMOX, St. Louis; News Director Joe Kramer for KCMO-TV, Kansas City; and Phillip Brimble of the *Kansas City Star*. Marguerite Shepard of the *St. Louis Globe Democrat* could not be present. KMOX returned its $150 check to MSMA and the money has been donated to the Missouri State Medical Foundation in the name of the radio station. KCMO-TV donated its $150 check to the University of Missouri-Kansas City School of Medicine.

MSMA regarding ways in which these organizations might cooperate in improving health education in such fields as venereal disease, drug abuse and alcoholism. The Department of Education and the Division of Health have developed a proposed new program of VD education in the public schools. It also is evident that more teachers need to be properly trained at the state colleges in order to teach such health education courses. Dr. Miller stated that the MSMA offered to participate in these endeavors and the offer was readily welcomed. Health education in these fields must be directed at all levels of education with physicians involved. He indicated that he felt that all physicians should be vitally interested and that possibly an ad hoc committee should be named through the Public Affairs Commission to cooperate and collaborate with the Department of Education and the Division of Health in these endeavors. It was Dr. Miller's opinion that the meeting was a fruitful one.

Dr. Miller reported that the Public Affairs Commission has been working with the Missouri Regional Medical Program to develop a conference for trustees, hospital administrators and physicians regarding hospital organization in the 70's. Attending this particular planning meeting, which was chaired by Dr. Arthur Rikli, were representatives of the Hospital Association, Osteopathic Association, MSMA and the University of Missouri. The conference will be held in Jefferson City at the Ramada Inn on March 9, 1972 and, hopefully, there will be 500 people in attendance. Dr. Miller stated that he felt this is an extremely important effort in which the MSMA must participate and asked the Councilors to make every effort to support this participation in their respective districts.—**Referred to Miscellaneous Affairs Committee.]**

■ Dr. Miller stated that he had spoken to the Council previously regarding the involvement of more capable members of the state medical association in the organizational affairs of the Association. He indicated that we must have dialogue beginning with the grass roots and that when Dr. Kerr presents the Planning Committee's assessment of the problem, some action should be taken to develop implementation to see to it that this organization has the most capable leadership that is available.

Dr. Miller said that in the matter of possibly procuring additional finances for MSMA and bringing all of medicine into closer unison, the MSMA might recruit specialty groups who do not have administrative facilities, but are in need of assistance, and that, at a given rate, we project our availability to do the administrative job for the specialty groups such as the OB-GYN Society, the Pediatric Society, etc. He also said that we should seek this opportunity to be responsible administratively for these groups and make our services available to them.

It was pointed out by Dr. Gunn that some of the local societies are doing this at the present time. However, this is not being done on a statewide basis.

Dr. Miller stressed the importance of unified participa-

The Honorable Durward G. Hall, M.D. of Springfield, expresses his appreciation to President Gerald L. Miller for the plaque presented to him by the MSMA *"In appreciation of his meritorious service on behalf of the State of Missouri as a member of Congress from the Seventh District and for his important contribution as a dedicated physician to the medical profession and the health of all people."* Congressman Hall, who was the guest speaker at the General Luncheon on April 8, has announced that after completing his sixth term in Congress, he will not seek reelection this year.

tion in the practice of medicine and the trends in many states regarding obligatory membership in the local, state and national societies. The educational centers are doing a good job with continuing education. Dr. Miller stated that he felt the AMA is no longer reactionary and that participation in AMA is approximately 61%. Efforts must be made on the grass roots level to sell the matter of unification in the practice of medicine.—**Referred to Reports of Officers Committee.]**

■ Dr. Miller suggested that a letter be drafted by Mr. Carroll and Mr. Allen Smith regarding the importance of unified membership in the organizational structure of medicine to be submitted to the presidents of the specialty groups within the state. Beyond that, hopefully, approval will be given to the idea that we submit a cover letter with the same communication to the presidents of other state medical societies indicating that this is what we are doing and we hope they will consider doing this in their respective states.

On motion of Dr. Gunn, duly seconded, this particular part of the president's remarks were tabled until Sunday morning when a letter would be submitted for approval.

Dr. Miller then reflected upon what the AMA has done regarding specialty section delegates in their House of Delegates. Dr. Miller indicated that he felt we need to avail ourselves of every opportunity to have input at the state, county and national level from responsible sections of medicine. In relation to this matter, he read a resolution proposing specialty group representation which the Cole County Medical Society expects to introduce at the 1972 MSMA Annual Session and recommended approval by the Council for recommendation to the House of Delegates for passage.

Dr. Matthews indicated that some of the county societies do not meet and some of the large societies have poor attendance. He stated that most of the physicians belong to a specialty group and this would give them, in essence, two representative ways of making themselves understood in the House of Delegates.

Lengthy discussion followed regarding the pros and cons of specialty group representation per se in the House of Delegates. It was suggested that the Cole County Medical Society could submit this resolution directly to the House of Delegates.

Dr. Miller called on Mr. Allen Smith to discuss a question raised concerning Junior Membership as spelled out in the MSMA Constitution and Bylaws. Mr. Smith indicated that they would like clarification of the Bylaws on Junior Members which reads as follows: "Junior members shall be limited to those members of component societies (1) who are serving a full-time internship or residency in a hospital approved by the Council on Medical Education of AMA, (2) and they shall continue as junior members for the first three years subsequent to the completion of accredited service." It was pointed out that, at the present time, junior membership is granted to some new members for three years after completion of accredited service, even though they were not members during their internship or residency. It was felt that this was in conflict with the present bylaws.

On motion of Dr. Gunn, duly seconded, it was agreed that this matter be referred to the Committee on Constitution and Bylaws to resolve this with a clear-cut definition of junior membership.—**Referred to Constitution and Bylaws Committee.]**

■ President Miller stated that the Council should be taking some action regarding our Association office requirements. He said that our present lease will expire in April, 1973 and the long range needs of the Association should be looked at. He called on Dr. Matthews to speak to this issue and asked that the Council take some action regarding MSMA's office facility needs of the future.

Dr. Matthews indicated that there is a very limited amount of property, represented in most part by old structures, within a convenient distance of the State Capitol and that most of these properties are being grabbed up as fast as they become available for various Association's headquarters. He stated that if it is appropriate, perhaps it would be advisable to suggest that someone be assigned to study this matter and report to the Council at a later date. Dr. Miller indicated that a committee could be set up so that immediate investigation could be started and that this committee be given the power to temporarily establish a holding mechanism in case property becomes available, until such time as proper information could be presented to the Council.

After brief discussion, Dr. McAlhany moved that the Council empower Drs. Matthews and Gulick and Mr. McIntyre to investigate the possibility of purchasing suitable real estate in Jefferson City, to authorize them to secure options, if necessary, and to report their progress to the Council at the January meeting. The motion was seconded by Dr. Hansbrough and carried.

It was suggested that perhaps we should meet with other organizations and work out something together rather than have our own building. Dr. McAlhany stated that he felt this should be the MSMA building. Dr. Cope stated that he felt a report should be made back to the Council in January so that some definite proposals can be made by the Council to the House of Delegates in April.—**Referred to Reports of Officers Committee.]**

■ Dr. Miller stated that he wrote a letter to the President of the Kansas Medical Association regarding MSMA's concern about the high cost for abortions in Kansas being paid by Missouri residents. He enclosed a copy of the letter to be sent to the OB-GYN Society of Kansas. Dr. Miller and Mr. McIntyre spoke to the President and the Executive Secretary of the Kansas Medical Society during the AMA meeting in New Orleans and they are equally concerned. This will be submitted to the Kansas Society and the OB-GYN Society of Kansas and we should be receiving a reply regarding this problem.—**Referred to Medical Education and Public Welfare Committee.]**

HEALTH CARE FOUNDATION OF MISSOURI

■ Dr. Miller said that in the absence of Dr. Benoit, he would report briefly regarding the Health Care Foundation of Missouri. The Board met recently and several things should be brought to the Council's attention. Dr. Miller reported that the HCFM has hired a full-time Executive Vice-President, Mr. Mark Halvorson. Dr. Miller stated that he felt the Association owes a tremendous amount of gratitude to Mr. Royal O. Cooper for his fine work in the implementation of the HCFM.

The Board of the HCFM gave approval to appointing an Advisory Committee composed of representatives from management, labor, the Blues, HIC, CHP, University of Missouri, hospitals and a legislator. This has been part of the deliberations of the Board for some time and steps were taken to implement this.

Drs. Miller and Allen discussed the proposed application of the University of Missouri to obtain a grant from HEW that could be used to develop a uniform procedural coding system, in cooperation with the HCF. The input into this program also would be helpful to the Foundation in establishing guidelines and parameters and in determining continuing education programs. The Board approved the Foundation's participation in the development of this project. Brief discussion followed, and it was pointed out that this would be at no cost to the Foundation.

On motion of Dr. Bradshaw, duly seconded, the Council agreed to endorse this activity of the Health Care Foundation.

Dr. Bradshaw moved that Mr. Royal Cooper be commended by Council endorsement of Dr. Miller's remarks concerning him and that the Council also recognize his contribution in this endeavor. The motion was seconded and carried.

Dr. Miller stated that the Commission on Interspecialty Medicine gave unanimous support to the Health Care Foundation at its October meeting.—**Referred to Resolutions Committee.]**

■ Dr. Washburn requested permission for the floor and made a few brief remarks regarding AMA President Dr. Wesley Hall's speeches at New Orleans in which Dr. Hall was critical of some aspects of AMA activities. Dr. Washburn reported that the House of Delegates has directed the Council on Long Range Planning to study Dr. Hall's criticisms and recommendations and to conduct hearings on this matter and to report recommendations to the House of Delegates. There will be open hearings for any member or group. They are to be held probably on Saturday before the 1972 Annual Convention in San Francisco. Anybody who has comments or suggestions about the operations of the AMA will be heard. Dr. Washburn asked the Council to be thinking about these hearings as the Delegates need instructions before they can appear before the AMA Council on Long-Range Planning.—**Referred to Constitution and Bylaws Committee.]**

■ Dr. Miller indicated that a personal application for membership in the Health Care Foundation, along with a covering letter, will be sent out to the membership in the near future. The application for membership reads as follows:

APPLICATION FOR MEMBERSHIP

Date: ....

TO: HEALTH CARE FOUNDATION OF MISSOURI

I, the undersigned, do hereby make application for participating membership in the Health Care Foundation of Missouri. I understand that no dues are involved.

As a member, I agree to abide by the decisions of the peer review committees as they relate to medical practice and fee determination, with the right of appeal.

I agree to participate in the work of the Foundation when requested to do so.

I understand that unless I submit a written resignation or lose my license to practice medicine in the State of Missouri, be suspended or removed from membership in the Foundation by the Board of Directors, my membership in the Foundation will be renewed automatically each year.

Name ....(M.D.)(D.O.)

Address ....

Dr. Miller asked the Council's support in getting the applications signed and returned.

On motion of Dr. Martin, duly seconded by Dr. Hetlage, the remarks of President Miller were accepted as amended. The motion carried.

AD HOC BLUE SHIELD AND BLUE CROSS

The Chairman called on Mr. Cooper to report on the meetings of both the Ad Hoc Blue Shield and Ad Hoc Blue Cross Committees. Mr. Cooper stated that the reports of these meetings were distributed to the Councilors for information only because they have not been submitted to the MSMA Commission on Medical Economics, Third Party Medicine and Governmental Relations. The Commission will be holding a meeting in January.

It was pointed out by Dr. McAlhany that the reason for the submission of the resolution, "Method of Reimbursement to Hospitals by Blue Cross," was to determine how Blue Cross functions. This information is necessary if physicians are going to aid in keeping down the escalating costs of health care. Mr. Cooper indicated that the two plans in Missouri have submitted data concerning determination of rates, methods of reimbursement and cost control programs. The Committee has recommended to the Commission that this information be furnished in some form to MSMA members.

Discussion followed regarding a trend in several states to replace physician and hospital representatives on Blue Cross Boards with consumer representation.

Discussion also was held regarding surgicenters and the impact they might have regarding cost of medical care. Dr. Chandler pointed out that if hospital utilization were cut only slightly, tremendous savings could be obtained. The Council agreed that no decision should be made at this time regarding surgicenters, since several of the speakers for the Public Affairs Conference will be speaking on this subject and, in all probability, resolutions concerning the subject will be introduced in the upcoming MSMA House of Delegates.—**Referred to Resolutions Committee.]**

114TH ANNUAL SESSION

■ Copies of a preliminary program for the 114th Annual Session were distributed to the Council. Mr. Fox indicated that the program is progressing well. Fourteen specialty societies are sponsoring some 19 sessions for the Annual Meeting. Many of these specialty groups are having dinner meetings, also. Two general sessions will be held—a General Session on Peer Review will be held on Friday morning and the General Session will be on Comparative Costs of Medical Care on Saturday morning. The preliminary program of the coming session appears in the January issue of Missouri Medicine.

Dr. Chandler reported on the progress of the Committee on Arrangements for the Annual Session, particularly regarding the Presidents' Banquet on Saturday night. He indicated that the Greene County Boys will entertain for some 30 to 40 minutes. There will be the usual presentation of the 50-year pins and the President's plaque. He stated that he felt this should be a nice, gala affair and asked if it would be possible for all hospitality rooms to be closed during the Saturday night festivities. A 17-piece orchestra has been hired to play for three hours of dancing. Discussion followed regarding the possibility of this being a black tie affair and whether or not the hospitality rooms should be asked to close. It was decided that hospitality rooms should be encouraged to close for the Saturday night events and that black tie be encouraged but not obligatory.—**Referred to Medical Education and Public Welfare Committee.]**

LEGISLATIVE REPORT

■ Dr. Matthews, Chairman of the Committee on Legislative Affairs, stated that there is considerable confusion concerning what will happen in relationship to both House and Senate bills presently in control of the House and the Senate. He said most representatives and senators are introducing the bills to be on the safe side. He gave a brief report on the health and medical bills which have been introduced thus far. A rundown of these bills will appear on the yellow insert page of the January, 1972 issue of Missouri Medicine.

After brief discussion, on motion of Dr. Gunn, duly seconded, the report of the Committee on Legislative Affairs was approved with thanks.

On Sunday morning, a proposed letter was read. It is to be sent to the presidents of the specialty societies in Missouri with copies to be sent to other state associations, along with a covering letter, pointing out that this is what is being done in Missouri.

On motion of Dr. Hetlage, duly seconded, the Council approved sending the letter.—**Referred to Miscellaneous Affairs Committee.]**

REPORT OF THE AMA DELEGATES

■ Dr. Neilson presented a brief report on the activities at the AMA Interim Session held in New Orleans on Nov. 27 to Dec. 1, 1971. He stated that the Missouri delegation held a caucus on Sunday morning prior to the first session to study all new material not included in the Handbook. Dr. Neilson called attention to Resolution #14 concerning Medical School Admission Policies which was introduced by the Oklahoma Delegation. Missouri was aware of the necessity of supporting this resolution and it was adopted as amended and referred to the Council on Medical Education.

Dr. Neilson then stated that Resolutions #11, #12 and #22 were considered together since they all relate to rising costs of hospital care. Resolution #22 concerned the relief of hospital patients' financial responsibility for hospital-based educational and training programs. The Reference Committee recommended a substitute resolution in lieu of Resolutions #11, #12 and #22 and that progress reports be submitted to future session of the House—adopted. Resolution #37—Confidentiality of Medical Records—would have the AMA request the Joint Commission on Accreditation of Hospitals to change their standards relating to medical records. This resolution was approved and referred to the Board of Trustees for report back in June, 1972.

Dr. Neilson briefly discussed President Wesley Hall's address to the AMA House of Delegates where he again called for a constitutional convention or some other method to accomplish a basic review of the Association's structure. He said the House adopted a proposal charging the Council on Long-Range Planning to consider the subjects of "constitutional change, organizational structure, and delineation of committee responsibilities" and to hold open hearings on these subjects at the next two House meetings, reporting to the House in June, 1973.

Dr. Neilson reported that Vice-President Spiro Agnew spoke to the AMPAC Dinner and was somewhat critical of the AMA in certain areas.

He reported that all four AMA Delegates and Alternates, as well as Officers and other members, were in attendance. He thanked them, as well as Mr. and Mrs. McIntyre and the other members of the staff who worked so hard during the convention.

A summary of the actions of the Interim Session will appear in the January, 1972 issue of Missouri Medicine.

The Chairman thanked Dr. Neilson for his report and on motion of Dr. Franklin, duly seconded, the report was approved.—**Referred to Constitution and Bylaws Committee.]**

RESOLUTION RE: SUPPORT OF MISSOURI STATE CONSERVATION COMMISSION

■ Dr. Neilson called attention to the resolution in support of the Missouri State Conservation Commission, which was considered by the Council at its meeting in September with the Council deciding to table the resolution until its December meeting. Dr. Neilson requested the Chairman not to take the resolution off the table at this time and requested that the Council ask Mr. Carl Noren, Director of the Conservation Department, to appear before the Council and present further information.

On motion of Dr. Franklin, duly seconded, the resolution was left on the table.—**Referred to Miscellaneous Affairs Committee.]**

WHY AMA MEMBERSHIP?

■ Mr. Tim Norbeck, Field Representative of the AMA for Missouri, spoke briefly about why physicians should join the AMA and the benefits available to them. He stated that there are a number of services available through the AMA, but that many physicians choose not to avail themselves of these services. He called attention to the Law Department which constantly gives out opinions and other information; the Department of Investigation, which stays abreast and works against all types of quackery; the AMA Speakers Bureau; the AMA publications, such as *JAMA*, specialty journals and all types of pamphlets, etc. He said the AMA also has retirement and disability programs, and the AMA has undertaken several pilot programs, one in California and one in Oregon, working toward a national coverage for professional liability through AMA and state medical societies.

Mr. Norbeck reviewed activities of the Congressional representation in Washington, D. C. and their successful efforts in regard to medical legislation. He stated that if organized medicine wants to remain strong, it is in the best interest to keep the AMA strong.

Dr. Cope requested that a copy of Mr. Norbeck's remarks be furnished to each Councilor. Mr. Norbeck agreed to supply a copy, which the staff could duplicate and send to each Councilor.

After further discussion, Dr. Gulick moved that the Editor of Missouri Medicine be requested to consider printing an article by Tim Norbeck entitled, "Why AMA Membership?," to be followed by an article entitled, "Why MSMA Membership?," the latter article to be written by an officer of MSMA or by the Editor. Motion was seconded by Dr. Matthews and carried.

REPORT OF THE PLANNING COMMITTEE

Dr. Kerr, Chairman of the Planning Committee, presented the report of the meeting held on Nov. 14, 1971 in Columbia. He stated that he had checked into the profitability of audio-medical digests, one fund-raising proposal suggested by the Committee at a prior meeting, and found that the market is glutted and profitability is doubtful.

The Committee then considered the matter of proposed additional insurance programs for Association members. Two proposals were presented; one is for an excess major medical insurance program, which includes dental services, and the other is for a group life insurance policy. The Committee voted to recommend to the Council that an advisory study committee on insurance and investment matters be appointed by the President of the Association to (1) decide if such programs are a needed function of MSMA and (2) if they are a needed function, to establish a protocol in regard to what should be done in the field of insurance and investment.

After discussion, on motion of Dr. McAlhany, duly seconded, this portion of the report was accepted.

Dr. Kerr stated that the Committee then considered the second and third items on the agenda which had to do with possible ways to reorganize the Association in order to increase the participation of younger members as well as to give members a greater voice in the selection of Councilors and Officers and possible ways in which medical students and house staffers can be an active part of organized medicine. Dr. Kerr mentioned that it is difficult to obtain names of members who wish to serve on Association committees.

Dr. Miller stated that his Advisory Committee had expressed interest in both of the subjects under discussion and that Dr. Fairchild, a member of the Advisory Committee, had been asked to suggest ways in which students and house staff members could be better informed concerning organized medicine. Dr. Fairchild presented a number of recommendations which were spelled out in the Committee's report which was distributed to the Councilors.

The Committee voted to recommend to the Council that the Council consider the Association's Constitution and Bylaws and reexamine the tradition by which officers of the Council and of the Association are elected in order to stimulate greater interest of the general membership in the Association.

The Committee then considered ways to interest new practicing physicians in organized medicine. The Committee voted to recommend to the Council that an intensive one-on-one program be devised to interest young practitioners in the county and state associations with each Councilor being responsible for carrying out this program within his district. The MSMA office would be directed to periodically inform Councilors of new members in their district. A list of all new members in the past two years in each district would be sent to the individual Councilors.

After discussion, on motion of Dr. Hetlage, duly seconded, this portion of the report was accepted.

The Committee voted to recommend to the Council that the MSMA staff be authorized to upgrade the information brochure which goes to all new members of the Association. The Committee members are making recommendations to this effect.

The Committee on Planning requested the Council to recommend that the Committee on Communications devise a method of rapid two-way communications between the Association office and the membership.

The Committee also urged greater use of MSMA committee and commission members as moderators at programs during the Annual Session.

On motion of Dr. Miller, duly seconded, the report of the Planning Committee was approved.

The matter of establishing a policy in 1973 of giving prospective exhibitors a choice of either having a booth or giving a financial grant to be used for the educational portion of the program was again brought up for discussion. It was pointed out that some firms could possibly do both, take a booth and also sponsor a speaker, with proper acknowledgement in the program.

After discussion, on motion, duly seconded, it was agreed that the Association policy concerning exhibits at annual sessions be altered to accommodate participation in this plan as proposed by the Executive Secretary. **—Referred to Reports of Officers Committee.]**

COUNCILOR DISTRICT REPORTS

■ *District* #1— Dr. Martin stated that this is a meeting of the Council and he felt that more time should be allotted for the Councilors to give their reports and that these should be presented as one of the first items on the agenda. After a brief discussion, on motion of Dr. Matthews, duly seconded by Dr. Miller, it was agreed that in the future, Councilor District reports will be given during the first morning session of the Council Meeting. Dr. Martin indicated that the First Councilor District Meeting was held on November 17, but that he was rather disappointed with the attendance.

District #2—Dr. Bach indicated that he had nothing of importance to report to the Council at this time.

District #3—Dr. Franklin thanked the Council and Officers for all the good wishes sent to Mrs. Franklin during her hospitalization.

He reported that St. Louis Medical Society recently held its election of officers and Donald Judd, M.D., was elected as President-Elect. Dr. Franklin invited those present to attend the installation of officers to be held on Tuesday, January 11.

Dr. Franklin stated that Dr. O'Neal, President of the St. Louis Medical Society, wrote letters to the class presidents of the medical schools at Washington University and St. Louis University asking for nominations to committees of the St. Louis Medical Society. Arrangements are being made to have Council meetings with St. Louis County on six occasions during the next year.

The St. Louis Medical Society Medical Museum has received national accreditation. It is one of 38 applicants out of 450 who received this distinction. He indicated to the Council members that if they have any rare items for the medical museum, it would be glad to accept them.

He indicated that there was very good attendance at a one-day forum on medical quackery which was cosponsored with the Better Business Bureau.

Dr. Franklin reported that the St. Louis Medical Society does office work for some of the local specialty societies.

He further reported that they are moving along on educational programs to secure funds for the rehabilitation of drug addicts projects.

Dr. Franklin stated that the fourth Councilor District held an excellent district meeting with a number of physicians from St. Louis and congratulated Dr. Hetlage on a fine meeting. It was well attended.

Dr. Franklin then reported on the activities of the Communications Committee regarding the journalism awards proposed for newspaper, television and radio. Dr. Cope had suggested that entries also should be taken from students of journalism. However, the Committee felt that if such an award were presented to a student, it might not receive the wide publication that we hope for and it is felt, at this time, that if we are going to improve communications, we must receive publication.

Dr. Hetlage moved that the Council authorize the expenditure of up to $450 per year for awards in the categories of newspaper, radio and television. Motion was seconded by Dr. Gunn and carried.

Dr. Franklin asked the Council for suggestions regarding possible winners of these three categories and asked that they be made as soon as possible so the awards can be granted at the Annual Session. It was pointed out that an independent group will do the judging, possibly from the Journalism School.

District #4—Dr. Hetlage reported that he has been holding monthly meetings with the officers of medical societies within his district because he feels this is important for improved communications. He stated that they are trying to appoint committees and commissions within the district, and he also is encouraging the county societies to run their societies as St. Louis City and County and as many other societies do with a Council to appoint committees, etc. and encouraging younger men to become involved in organized medicine. District committees have been set up on Continuing Medical Education and a committee to work with Mr. Hughes on Blue Shield. The County Societies have been asked to appoint ad hoc committees concerning physician assistant and relative to HMO's.

Dr. Hetlage thanked the St. Louis Medical Society for its assistance in gaining the good attendance at the Fourth Councilor District meeting. Material has been distributed to physicians throughout his district regarding the AMA's stand on HMO's, CHP's, etc. Dr. Hetlage stated that they are pleased with the physicians new input into Blue Shield and participation in their decisions. He reported that his district is in favor of an interim MSMA scientific meeting, but would discuss this at the next meeting.

Dr. Hetlage said that the drug committees have been appointed in St. Charles-Lincoln and St. Louis County Medical Societies.

Dr. Hetlage indicated to Dr. Franklin that it would be appreciated if officers of the other societies in the fourth Councilor District could be invited to the joint council meetings of St. Louis Medical and St. Louis County.—**Referred to Reports of Officers Committee.**]

■ Dr. Hetlage reported that the St. Louis County Medical Society feels that it should recommend to the Council that they go on record as encouraging legislation specifically requiring the certification of physician assistants and that this be done under the Board of Healing Arts. Specific requirements should be written into that law to prevent an uncontrolled use of physician assistants by men who may not be qualified to do so. He then read the following resolution proposed by the St. Louis County Medical Society and Fourth Councilor District:

Whereas, There is a need to extend the services that Missouri physicians can provide, and

Whereas, One mechanism for this is the use of the physician's assistant, and

Whereas, Public acceptance of this new variety of medical technician can be expected, especially in those areas presently experiencing a shortage of physicians, and

Whereas, If we, as physicians, are not actively involved in all phases of the training and supervision of the physician's assistant, and do not encourage control by legislation, they may develop their own programs and licensing boards, outside the Board of Healing Arts, now therefore, be it

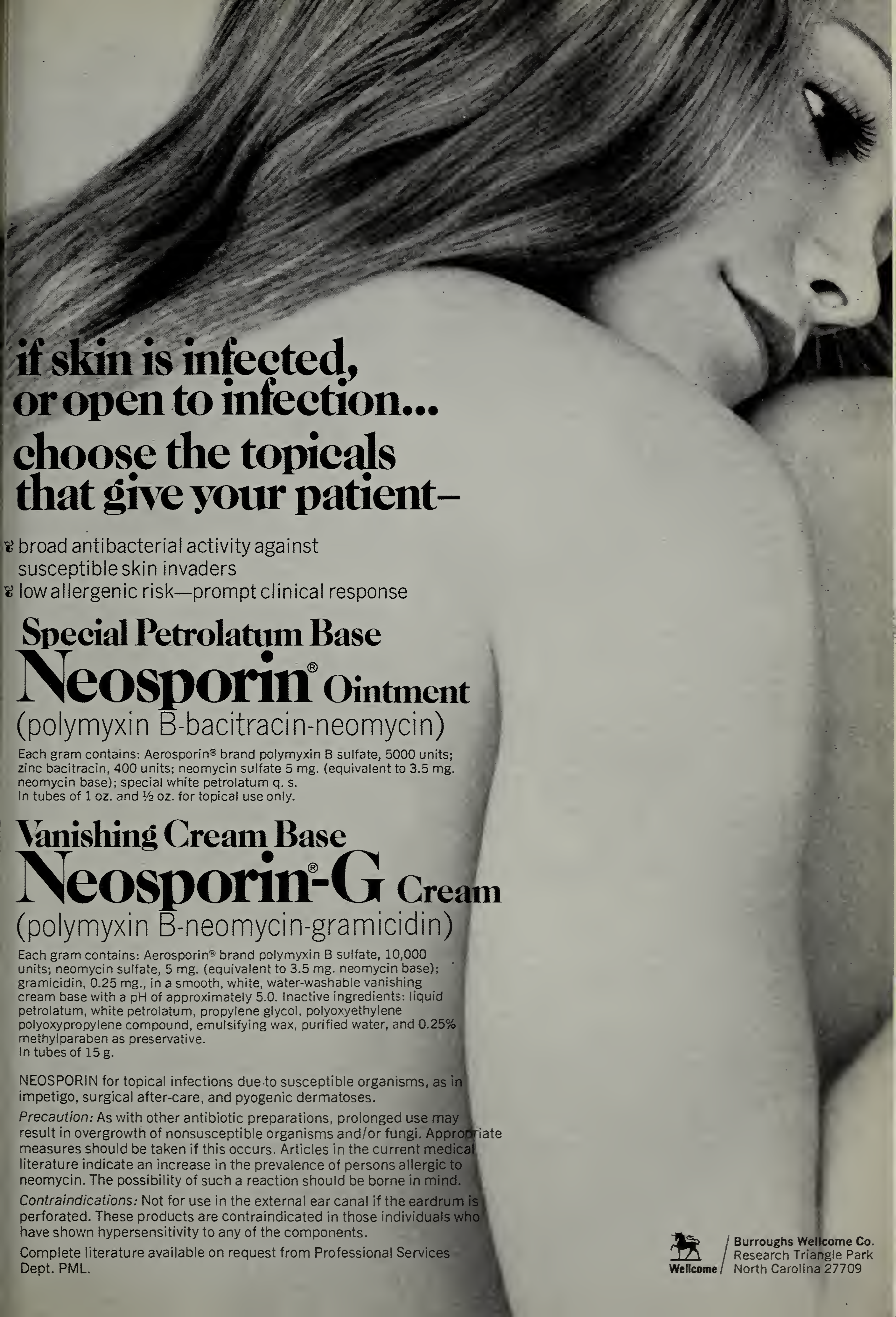
Resolved, That this Council of the MSMA goes on record as further endorsing the concept of the physician's assistants for the State of Missouri, and be it further

Resolved, That this Council encourages legislation to be introduced in the legislature of this state leading to certification of physician's assistants under the Board of Healing Arts, providing such legislation is compatible with such national certification boards as may be established by the AMA, and be it further

Resolved, That this Council and the members of the MSMA make themselves available to those institutions of learning in this state that are planning, or have begun the training of physician's assistants, for advice and direction, so that from the beginning, these programs will produce assistants of proper caliber and education, oriented to the practicing physician, and be it further

Resolved, That this Council, through its staff, be kept informed of any changes in programs of training and certification of physician's assistants which may be promulgated by the AMA so that the program in Missouri may complement such programs as may be developed in the future.

Discussion followed regarding Colorado and the experience which they have had with their law regarding physician assistants. Dr. Matthews stated that, traditionally, RNs and LPNs have been physician assistants, and he felt it should be emphasized to physicians that they al-



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choose the topicals that give your patient–

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Special Petrolatum Base

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(polymyxin B-bacitracin-neomycin)

Each gram contains: Aerosporin® brand polymyxin B sulfate, 5000 units; zinc bacitracin, 400 units; neomycin sulfate 5 mg. (equivalent to 3.5 mg. neomycin base); special white petrolatum q. s.
In tubes of 1 oz. and ½ oz. for topical use only.

Vanishing Cream Base

Neosporin®-G Cream

(polymyxin B-neomycin-gramicidin)

Each gram contains: Aerosporin® brand polymyxin B sulfate, 10,000 units; neomycin sulfate, 5 mg. (equivalent to 3.5 mg. neomycin base); gramicidin, 0.25 mg., in a smooth, white, water-washable vanishing cream base with a pH of approximately 5.0. Inactive ingredients: liquid petrolatum, white petrolatum, propylene glycol, polyoxyethylene polyoxypropylene compound, emulsifying wax, purified water, and 0.25% methylparaben as preservative.
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NEOSPORIN for topical infections due to susceptible organisms, as in impetigo, surgical after-care, and pyogenic dermatoses.

Precaution: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

Contraindications: Not for use in the external ear canal if the eardrum is perforated. These products are contraindicated in those individuals who have shown hypersensitivity to any of the components.

Complete literature available on request from Professional Services Dept. PML.

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ready have these people in their offices and as now licensed can perform many more tasks than physicians will allow them to do. Dr. Hansbrough stated that foreign medical graduates are now being licensed, and although the physician assistants may be needed now, this may not be the case in the future. He further indicated that he did not feel this would alleviate the physician manpower shortage in the state since the physicians mostly interested in the physician assistants are specialists in the metropolitan area.

Following further discussion, Dr. Hetlage moved that the resolution be accepted and be referred to the Ad Hoc Committee on Physician Assistants, which is chaired by Dr. Stoneman, for study, and that appropriate legislation be considered which would provide for certification of physician assistants under the State Board of Registration for the Healing Arts. This Ad Hoc Committee to report back to the Council at the January Council Meeting. The motion was seconded and carried.—**Referred to Miscellaneous Affairs Committee.]**

■ *District* #5—Dr. Cope reported that his District Meeting on November 4 was well attended. Dr. Miller spoke, as did Mr. Alan Bloom of HEW. Dr. Cope then discussed briefly the appropriateness of medical care in certain situations.

District #6—Dr. Bradshaw reported on his Councilor District Meeting and said that approximately 70 were in attendance. Senator Cason was the speaker and gave an interesting program regarding the role legislators can play and how they can be helpful.—**Referred to Reports of Officers Committee.]**

■ *District* #7—Dr. Chandler reported that Jackson County has an ad hoc committee which is meeting with the Mayor of Kansas City who is responsive to the idea of possibly developing a pilot HMO in Kansas City. Jackson County Medical Society, following a routine investigation by the IRS, recently received a letter from IRS indicating that their tax exempt status will continue. Membership applications in the Jackson County Medical Society have doubled in the past few months.

Dr. Chandler reported that Jackson County has been approached again by another HMO planning group which wants the Medical Society's endorsement for a feasibility study. Tentative endorsement was given to the primary purpose of this study.

Another Neighborhood Health Center has been started in Kansas City.—**Referred to Resolutions Committee.]**

■ *District* #8—Dr. McAlhany reported that the Community Organization for Drug Abuse Control (CODAC) in Springfield now has a full-time Executive Secretary, a Board has been created and the schools are cooperating. They also are in the process of establishing a crises intervention center. He indicated that it will take time to see how this project in Greene County will function.

Springfield will have a commercial blood bank which is a branch of the Kansas City bank. A physician is being sought in Springfield to supervise it. This would be in competition with the local Red Cross which functions well.—**Referred to Miscellaneous Affairs Committee.]**

■ *District* #9—Dr. Stricker reported that a Councilor District meeting was held in Salem and the attendance was very good. He indicated that both Dr. Miller and Dr. Benoit attended and spoke to the group.

District #10—Dr. Hansbrough indicated that the Tenth Councilor District held its meeting in conjunction with the annual Southeast Missouri Cancer Conference. He felt that attendance could have been better. He stated that Dr. Noback spoke at the meeting regarding the University of Missouri Medical School at Kansas City. He said that no application for the K C Medical School has been submitted from the Tenth Councilor District.

He stated that he has been visiting and talking to the medical societies in his district and feels that this is the best contact a Councilor can make.

Dr. Hansbrough reported that the main point he wished to make during his Councilor District Report at the September Council Meeting regarding medical care cost did not appear in the minutes. He stated that he wishes to stress the point that in Southeast Missouri, there are two coronary care units—one costing approximately 25 times more than the other. Many people feel that if federal funds are involved, they must spend them. He further indicated that it is not necessary to have some of the expensive medical equipment, such as the heart-lung machine, located on every corner. Physicians are in a position to be most helpful in reducing the overall cost of medical care by assisting in eliminating duplication of costly medical facilities in many situations. Dr. Hansbrough stated that he felt surgicare is an attempt to cut down the health care delivery costs and save patients' money.

NEXT COUNCIL MEETING

The next Council Meeting will be held on Friday and Saturday, January 28 and 29, at the Ramada Inn in Columbia, preceding the Public Affairs Conference to be held on Saturday afternoon, Jan. 29 and Sunday, Jan. 30, 1972.—**Referred to Reports of Officers Committee.]**

Meeting of Jan. 28-29, 1972

E. A. Stricker, M.D., St. James, Chairman, called the meeting to order. Those present were Drs. Stricker; John N. Martin, St. Joseph; Max S. Franklin, St. Louis; Louis P. Hetlage, Troy; James C. Cope, Columbia; William D. Bradshaw, Clinton; R. Allen Chandler, Kansas City; E. T. Hansbrough, Poplar Bluff; Gerald L. Miller, Kansas City; Walter T. Gunn, St. Louis; Charles R. Gulick, St. Louis; John I. Matthews, Jefferson City; E. D. Imes, Maryville; Robert Slickman, Kansas City; Kenneth Hollweg, Kansas City; Paul R. Young, Columbia; Hector W. Benoit, Jr., Kansas City; Stanley S. Peterson, Springfield; Herbert R. Domke, Jefferson City; William D. Mayer and William C. Allen, Columbia; Richardson K. Noback, Kansas City; V. H. Balster, St. Louis; Mrs. Frank Valach, St. Louis; Mrs. Keith Jones, Warrensburg; Messrs. John Hailey and Mark Halvorson, Jefferson City; Allen D. Smith, Kansas City; Gary L. Schnedler, Springfield; William Lindsley, St. Louis; Ray McIntyre, Tom P. Fox, Bob Carroll and Royal O. Cooper, Staff.

APPROVAL OF PREVIOUS COUNCIL MINUTES

The Chairman called the meeting to order, welcomed all present and asked for approval of the Dec. 11, 12, 1971 Council minutes. On motion of Dr. Gunn, duly seconded by Dr. Hetlage, the minutes of the Dec. 11-12, 1971 Council Meeting were approved as distributed.

The Chairman then introduced Mrs. Valach, President, Woman's Auxiliary to MSMA, and Mrs. Jones, President-Elect, Woman's Auxiliary to MSMA.

Mr. McIntyre reported a few brief statistics on the cost of the Council meeting held at the Lake of the Ozarks in comparison to those held in St. Louis, Kansas City and Jefferson City.

TREASURER'S REPORT

■ The Treasurer's Report was presented by Dr. Gulick. He reported that the audited account of the activities of the Association for the calendar year 1971 shows an excess of income over expenses and stated that this was due largely to the increase in MSMA membership during the past year. The 1971 audit of the Association's accounts will be published in the March, 1972 issue of MISSOURI MEDICINE and will be included in the Delegates' Handbook for the 1972 Annual Session. On motion of Dr. Gunn, duly seconded by Dr. Bradshaw, the report of the Treasurer was approved.—**Referred to Reports of Officers Committee.]**

MEDICARE BULLETIN

■ Dr. Cope distributed copies of a Medicare Bulletin dated December, 1971, parts of which he took exception to and indicated that he felt the Council might take some action regarding it. This bulletin indicates that Medicare will not pay for the service of auxiliary personnel unless the physician is "on the premises." Dr. Cope felt that strong exception to this provision should be taken, pointing out that it is contrary to the best interest of Medicare, as well as to the patient, since this restricts physician services by limiting his use of such personnel.

Secondly, this Medicare bulletin indicated that payment may not be made under Part B for expenses which constitute charges for immediate relatives of physicians or members of their households. Dr. Cope stated that he felt professional courtesy should be a prerogative of the physician and not a matter of governmental regulation.

Dr. Peterson stated that the MSMA Commission on Medical Economics had met recently and discussed this particular Medicare Bulletin and recommends that MSMA take exception to this Medicare Bulletin. This Commission further recommends that an ad hoc committee on professional courtesy be appointed to study this regulation and to report back to the Commission.

Discussion followed and Dr. Hansbrough indicated that he felt we should object to the item regarding professional courtesy in the Medicare Bulletin. However, he felt that we should not object at this time to nonpayment of physicians assistants, since no definition of physicians assistant has been made.

After further discussion, Dr. Miller moved that Dr. Cope propose a letter to be submitted to the Council on Sunday morning which would be appropriate for mailing to our Senators and Representatives in Congress and to the Social Security Administration regarding the Council's objection to these two items in the Medicare Bulletin of December, 1971. Motion was seconded by Dr. Gunn and carried.—**Referred to Resolutions Committee.]**

PRESIDENT'S REMARKS

■ Dr. Miller reported on several meetings which he attended recently. He attended the Annual Meeting and Installation of Officers of the St. Louis Medical Society which was an outstanding affair. He stated it was a delight to participate in the Installation of Officers at the St Louis County Society and the Clay County Society. He indicated that the presentations by Dr. F. E. Pennington of St. Louis City, by Dr. Jack Eidelman of St. Louis County and by Dr. Donald Kuenzi of Clay County were quite good and suggested that they might be published, at least in part, in MISSOURI MEDICINE.—**Referred to Reports of Officers Committee.]**

■ Dr. Miller stated that MSMA has participated in an educational effort regarding HMO's and indicated that Mr. Bloom of HEW has discussed HMO's at a number of Councilor District meetings. He stated that the recent HMO grant of $100,000 for Kansas City is a developmental funding for a pilot project in the inner-city area. It should be carefully observed and reported to all constituents, consumers, purveyors of service and certainly to MSMA. He stated that varying significant changes in health care delivery mechanisms are before us, and it is probable that HMO's are among them. The Blues are interested in this concept of HMO's. They feel that they have fiscal know-how and they can effectively help with the cooperation of physicians in developing such prepayment programs. Organized medicine needs to know what is going on and Dr. Miller proposed that this Council direct the appointment of knowledgeable people to an Ad Hoc Committee, possibly under the Commission on Medical Economics, to report to this Council at given intervals, at least not less than bi-annually, on significant proposed changes in our health care delivery mechanisms.—**Referred to Resolutions Committee.]**

■ Dr. Miller stated that his President's Advisory Committee which is made up of a student and young physicians not necessarily in the mainstream of organized medicine, have had limited activity, but he felt they had been helpful. He recommended that some mechanism be continued giving better opportunity to have appropriate input from the total spectrum of medicine.

He reported that the President's Committee on Health Education is holding hearings throughout the U. S. and he was invited to attend the hearing in St. Louis. Dr. Miller and Mr. McIntyre did attend. However, the MSMA received no preliminary information about this hearing. Looking over the program for the following day, they noted there was no place for the purveyors of service to be heard. Dr. Miller stated that physicians are not being informed of these things and suggested that a letter be sent to Mr. Richardson of HEW and a copy to Dr. Vernon Wilson reflecting our concern about the uninvolvement of the mainstream of medicine in health education hearings throughout the U. S.

Dr. Miller said that MSMA representatives have met with the Department of Education relative to attacking the problem of health education in our school system and our having some medical input into the restructuring of curricula in secondary schools together with an attack on VD, drug abuse, alcoholism and further projecting our input into an on-going educational program for adults as well as students. He further stated that he is very enthusiastic because medicine will soon begin having more input into this overall structure of health education.—**Referred to Miscellaneous Affairs Committee.]**

■ Dr. Miller urged medical unity, proposing that physicians should belong to their local, state and national organizations, along with their specialty groups, stating that the AMA must have more support from local and state societies.

Dr. Miller stated that a letter was written to the Chairman of the Price Commission protesting discriminatory fee regulations governing physicians and urging more proper guidelines.

Dr. Miller called the Council's attention to the important meeting regarding Hospital Organization in the 70s which is being co-sponsored by the MSMA. This meeting is to be held on March 9 at Ramada Inn in Jefferson City. He invites the attention and participation of trustees, hospital administrators and physicians, particularly chiefs of staffs of hospitals. He asked that the Council encourage these people to attend, especially at the hospital level.

He reported that he was asked to set up a committee to consider the program spectrum of insurance, which we now have in the profile of MSMA, and for this committee to make other recommendations for embellishing this program. This is a service to all members, and prospective members also should be made aware of this program. Dr. Miller again asked the Council for suggestions or recommendations for physicians to be members of this insurance committee.

MSMA is a co-sponsor of a PAS-MAP Conference to be held on February 24 at the Muehlebach Hotel in Kansas City, and President Miller will be a participant. There has been good communication to hospitals throughout the state on this matter. They are working on the development of a uniform type of coding.

Dr. Miller called attention to the fact that the participation agreements for the Health Care Foundation have been sent out and asked that all Councilors urge their constituents to sign and return them. It was pointed out that Dr. Cope, as Councilor for the 5th District, sent a letter to the M.D.s in his District explaining the HCF and asking that they sign and return the application form.—**Referred to Reports of Officers Committee.]**

■ Dr. Miller indicated that in the past, the Council has taken a position supporting fluoridation. He said that the dentists would like to have a letter either reiterating our position or taking a new stance on this. Dr. Domke stated that he thought it also might be well for the MSMA to send a copy of the letter regarding its position on fluoridation to the State Board of Health.

After discussion, Dr. Hansbrough offered the following motion: "That the Council of MSMA, realizing the medical importance of natural occurring fluorine taken in proper concentration into the human body, recommends the adding of fluorine to all drinking water systems in Missouri in the concentration of one part per million." Motion was seconded and passed.

Dr. Miller stated that a significant amount of interest is developing for changes in the Missouri Nurses' Law. He stated that there is a movement regarding the development of RN midwife curricula in schools. Considerable effort is being made to get the Missouri Attorney General to make an interpretation of the existing act regarding RN midwives. St. Louis University is presently developing curricula for RN midwifery. In some states in which RN midwives are being used under the supervision and direction of physicians, health care has markedly improved. Dr. Miller stated that he hoped the Council would take some action on this matter.—**Referred to Miscellaneous Affairs Committee.]**

■ Dr. Gunn stated that he would like to go on record as favoring unified membership as discussed by Dr. Miller.

Dr. Hansbrough stated that the VA is no longer paying for their physicians' membership in AMA, but they still expect them to belong, so a special effort is being made to get these physicians in his area to join their local, state and national medical society.—**Referred to Reports of Officers Committee.]**

■ Dr. Hansbrough brought up the subject of continuing medical education and referred to the meeting in March on hospital organization. He stated that educational fees are escalating and, before long, medical education will be so expensive that physicians won't be able to attend meetings. Medicine must adopt methods by which to help pay for this.—**Referred to Medical Education and Public Welfare Committee.]**

■ After further discussion, Dr. Gulick moved that the Council assign the responsibility of study of HMO's and other health care delivery mechanisms to the Chairman of the Medical Economics Commission for action. Motion was seconded by Dr. Cope and passed.—**Referred to Resolutions Committee.]**

EXECUTIVE SECRETARY'S REPORT

■ Mr. McIntyre introduced Dr. Slickman, Vice-Speaker of the MSMA House of Delegates, and welcomed him to the meeting.

Mr. McIntyre indicated to the Council that Dr. Washburn had undergone eye surgery and was now recuperating at home. Motion was made, seconded and passed that a get well card be signed by those present and sent to Dr. Washburn.

Mr. McIntyre read a thank you note from Mrs. Franklin for the many nice cards, flowers and good wishes sent to her during her recent hospitalization.

MSMA was contacted by Dr. Howard's Office of AMA asking MSMA to recommend a physician to be considered for the AMA Board of Trustees Advisory Committee on Cancer. Dr. Wendell Scott was recommended, not only because of his qualifications, but also because of his interest and influence in getting this Advisory Committee on Cancer established.

Mr. McIntyre reported that we have received the annual request from the Student American Medical Association for sustaining membership which carries dues in the amount of $100. On motion, duly seconded, it was agreed that dues in the amount of $100 should be paid to SAMA.

Mr. McIntyre stated that the AMA and AMPAC are having another workshop in Washington, D. C. on March 10, 11 and 12, and MSMA will be sending a delegation to this workshop. He requested that the Council authorize funds for a luncheon for Missouri Representatives in Congress and the two Senators during this workshop, possibly on March 10. This was done last year. On motion, duly seconded, the Council authorized expenditure of funds for the luncheon.

In the absence of Mr. Noble, Legal Counsel, Mr. McIntyre gave a brief report on the two law suits in which the MSMA is involved. The Curteman Case is now in the Supreme Court and the final hearing before the Supreme Court has been held.

The other suit involving the Health Care Foundation of Missouri is now in the hands of the Circuit Judge of St. Louis County. Motions have been filed and one requests that the case be dismissed.

Mr. McIntyre indicated that the Editor of Missouri Medicine is appointed annually. On motion of Dr. Cope, seconded by Dr. Gunn, it was agreed that Dr. Finnegan be reappointed as Editor of Missouri Medicine. Mr. McIntyre stated that he would request that Dr. Finnegan submit for Council consideration and approval members for the Editorial Board and Publications Committee.

Mr. McIntyre said that we have been asked to support the conference of Presidents of State Medical Societies which is held in conjunction with the annual meeting of AMA. On motion from Dr. Gunn, duly seconded, the Council agreed to support this effort in the amount of $75.00.—**Referred to Reports of Officers Committee.]**

PUBLIC AFFAIRS CONFERENCE

■ Mr. Carroll indicated that the Public Affairs Conference will be held on Saturday PM and Sunday AM, January 29 and 30. He stated that a change had been made in the program which was distributed to all members of MSMA. He indicated that Mr. James Foristel of the AMA Office in Washington, D. C. will appear on the program in place of Mr. Tim Norbeck who is no longer with the AMA Field Service in St. Louis.

Mr. Cooper distributed material to the Council regarding tours that might be sponsored by the MSMA. He stated that he would like for them to look over the material and later on in the meeting give a decision as to (1) Should the MSMA sponsor tours? (2) Do you like any of the tours spelled out in the brochure? (3) If you do not, would you be interested in others? and (4) Would you like some postgraduate medicine along with the trip? The Chairman asked that the Councilors study this and he would bring it up on Saturday for discussion.—**Referred to Miscellaneous Affairs Committee.]**

■ Mr. McIntyre reported that Dr. Byron Stuart has been the MSMA representative on the Liaison Committee to MRMP and he has requested that he be relieved of this job. Most of the meetings are held in Columbia at the headquarters of RMP and they are usually held on Thursday or Friday. Mr. McIntyre said that he had discussed this with Dr. Cope and it is suggested that Dr. Cohrs of Moberly be appointed to this Liaison Committee. Dr. Cope indicated that Dr. Cohrs is very knowledgeable and would attend the meetings.

On motion of Dr. Cope, seconded by Dr. Hansbrough, it was agreed that Dr. Clarence R. Cohrs of Moberly be appointed to represent the MSMA on the Liaison Committee to the Missouri Regional Medical Program.—**Referred to Resolutions Committee.]**

■ Mr. Fox reported that Mr. Gund of Group Plans Agency, Inc. had contacted the MSMA office regarding Council approval of extending the Group Accident Plan to provide In-Hospital Income. Approximately 180 policies are in force at the present time under this Group Accident Plan. Group Plans Agency, Inc. is seeking Council approval to send out information on this extension when the premium notices go out.

On motion of Dr. Miller, seconded by Dr. Bradshaw, the Council agreed that the request of Group Plans Agency, Inc. be approved.—**Referred to Reports of Officers Committee.]**

MEDICAL ECONOMICS, THIRD PARTY MEDICINE AND GOVERNMENTAL RELATIONS

■ Dr. Peterson reported that the Commission on Medical Economics, Third Party Medicine and Governmental Relations met on Jan. 16, 1972 in Jefferson City. At that time, the Ad Hoc Blue Cross Committee made a report to the Commission regarding the study of reimbursement of hospitals by Blue Cross to determine the role of Blue Cross in contributing to the increase of hospitalization expense and to make this information known to members of MSMA and to the general public. Highlights of both the St. Louis and Kansas City Blue Cross Plans were presented to the Council. It was the consensus of the Ad Hoc Blue Cross Committee that Blue Cross does not contribute to increased hospital costs—increased demand and over-utilization of services appear to be the main contributing factors. The committee also felt that the information should be furnished to physicians only and not "to the general public," as directed. During the Commission meeting, it was "resolved, that the information from the two Blue Cross plans should be submitted by the Commission to the Council for review. Realizing that the information from the plans is inadequate, this should be considered as an interim report and the committee will continue to obtain additional information." It was further recommended that the Council consider publishing this information in Missouri Medicine when completed.

Dr. Peterson reported that Dr. Chastain gave a report of the Ad Hoc Blue Shield Committee. This Committee was concerned with "subscriber representation on Blue Shield Boards." Dr. Peterson stated that the Blue Shield plans have convinced the Ad Hoc Committee that they are working diligently to have proper representation on their Boards and it was his feeling that what the House of Delegates requested is being accomplished.

Dr. Peterson stated that the next item of business on the agenda for the Commission concerns coordination of benefits by insurance companies. The Kansas City Plan presented a statement indicating that they endorsed coordination of benefits. Dr. Peterson stated that it was the consensus of the committee that coordination of benefits does help prevent the overutilization of health insurance. It is planned to have a representative of HIC discuss this further with the Committee.

Dr. Peterson reported that the Commission discussed legislation in the General Assembly, which would place the "Blues" under the supervision of the Superintendent of the Division of Insurance, and a current bill that would eliminate coordination of benefits in health and accident policies. The Commission recommends that the Legislative Committee study the latter bill.

The Medicare Bulletin alluded to earlier by Dr. Cope was discussed at the Commission meeting.

Dr. Peterson reported on the Ad Hoc Committee to Study the Negotiation of Professional Fees. He presented his report to the Commission and submitted a suggested organizational plan to accomplish the negotiation of professional fees and working conditions within the framework of organized medicine. He explained that this was not a finished plan, but that it should be considered as a framework or a method that could be used. A copy of this plan was distributed to the Council. Dr. Peterson explained that his committee is attempting to obtain counsel to study the legal ramifications of this proposal and to draft the mechanism in a manner that will enable it to fit into the present MSMA Constitution and Bylaws. This suggested organization plan will be included in the Delegates' Handbook for the 1972 Annual Session.

Lengthy discussion followed regarding the report of the Commission on Medical Economics, Third Party Medicine and Governmental Relations.

Dr. Hetlage reported that his District does not agree with the coordination of benefits and disagrees with the findings of the Ad Hoc Committee. He stated that is a person has two insurance policies—one with an employer and one of his own—and he is told he will receive certain benefits under the plans, he should either receive these benefits or be reimbursed on his premium from the insurance company. He stated that he felt some other way might be devised to prevent the overutilization. He certainly agrees that it should not be profitable to be sick.

Dr. Miller stated that he felt there was an educational factor here. Some people purchase hospitalization insurance to compensate for time lost at work, etc. It should be pointed out to consumers that guaranteed-income insurance can be purchased at a much lower rate than health and accident protection.

Dr. Franklin indicated that many people have had their health insurance policies for many years and if coordination of benefits is included now, it will be a rewriting of the policies without cutting the premium.

Dr. Peterson indicated that this was just an interim report of the Ad Hoc Committee and the Commission and that further study would be made.

Dr. Gunn stated that in view of some of the problems regarding consumer representation that ARCH (Alliance for Regional Community Health) has had recently, we should go slowly on insisting on consumer representation on the Blue Shield Boards.

Dr. Peterson stated that he would like to echo Dr. Miller's sentiments regarding physician involvement in health and medical matters. Many times physicians have no voice and are not consulted regarding these matters.

After further discussion, on motion of Dr. Miller, seconded by Dr. Cope, the report of the Commission on Medical Economics was accepted.—**Referred to Resolutions Committee.]**

■ Dr. Peterson, speaking as an AMA Delegate, indicated that he felt that medical meetings of great importance are being held and at which MSMA is not represented. He said that, at the present time, a Senior Executive Conference for Medical Society Executive is being held in Chicago and we are not represented. He indicated that staff is needed for the Council Meeting and the Public Affairs Conference, but still felt that we should be represented at such meetings.

Mr. McIntyre explained that the meeting in Chicago is held each year on the same weekend as our January Council Meeting and indicated that perhaps in the future, an effort should be made to schedule the Council meeting for either the weekend before or after this Conference so that staff could attend.—**Referred to Reports of Officers Committee.]**

AD HOC COMMITTEE ON EMERGENCY MEDICAL CARE

■ Mr. Carroll reported on the activities of the Ad Hoc Committee on Emergency Medical Care, which is chaired by Dr. Allen Klippel. This Committee held a meeting in Columbia on December 19.

The Committee discussed the ambulance licensing bill and recommended that MSMA reaffirm support of the ambulance licensing bill and that a witness for the Association appear in favor of it when a hearing is held. They also recommended that MSMA continue support of a good Samaritan law for Missouri. The Committee recommended that MSMA continue to support legislation to lower the percentage of alcohol in the blood to determine intoxication from the present .15% to .10%.

The Committee recommended that MSMA cooperate with other organizations and state agencies in developing a regional concept of emergency medical care in Missouri.

The Committee recommended that first aid instruction be included in all driver's training courses, that a section of first aid instruction be included in the driver's license test manual and that questions on first aid be included in the driver's test. The latter recommendation will be discussed with the Department of Revenue.

On motion of Dr. Miller, duly seconded by Dr. Gunn, the Report of the Ad Hoc Committee on Emergency Medical Care was accepted.—**Referred to Miscellaneous Affairs Committee.]**

REPORT OF THE MEDICAL-LEGAL COMMISSION

■ Mr. Cooper reported on the joint meeting of the Medical-Legal Committees of MSMA, MAOPS and Missouri Bar Association. He stated that the National Interprofessional Code for Physicians and Attorneys was presented to the members. This code sets forth suggested rules of conduct for physicians and attorneys in their interrelated practice. A general discussion of the features of the code was held. Following this, it was "Resolved, that the three organizations present this code to their respective organizations and seek approval to promulgate this code in their official publications." It also was the consensus of those present that this code could be adopted and implemented at the local level.

Mr. Cooper stated that a general discussion of the payment of medical fees for services rendered to a patient at the request of an attorney or for services rendered relative to litigation was held. It was agreed that the attorney should protect these fees and request permission of the client and patient to pay the physician.

Discussion was held regarding the hearings that are currently being conducted by the Department of HEW on a regional basis concerning the medical malpractice situation in the U. S. It is believed that the report of this Commission will be of great interest to both professions.

Mr. Cooper reported that contingency fees were discussed. Background information regarding the concept of prohibiting contingency fees was presented. Mr. Hullverson of the Missouri Bar Association, informed the Committee that the contingency fee is needed, because many clients will not and cannot finance litigation. He pointed out that only 0.1% of attorneys accept cases on a contingency basis and the contingency fees do not contribute to the medical malpractice problem. It was explained that malpractice is becoming a serious problem in all of the professions.

It was brought to the attention of those present that MAOPS is conducting regional workshops on malpractice and the prevention of medical accidents for its members. He suggested that MSMA might consider this.

Mr. Cooper indicated that another meeting of this committee is planned for May 6 and asked the Councilors for any items they wish to appear on the agenda.

Discussion followed regarding the report, particularly that portion regarding the percentage of attorneys accepting cases on a contingency basis. Dr. Hansbrough suggested that possibly in view of Medicare for the poor, there should be legal care for the poor, so the attorneys do not have to work on contingency.

Mr. Cooper asked if the Council might consider setting up regional workshops on malpractice and the prevention of medical accidents for MSMA members. It was suggested that, perhaps, this could be done as a portion of Councilor District meetings.

Further discussion followed regarding contingency fees. On motion of Dr. Cope, duly seconded, the report of the Medical-Legal Commission was accepted with clarification requested of the 0.1% attorneys accepting cases on a contingency basis. Motion carried.—**Referred to Constitution and Bylaws Committee.]**

PRESIDENT AND PRESIDENT-ELECT WOMAN'S AUXILIARY

■ Mrs. Valach thanked the Council for the invitation to attend. She pointed to some of the projects in which the Auxiliary has been involved during the past year. Approximately 26 states have asked for the environmental health packet which was devised by the MSMA Woman's Auxiliary.

Mrs. Jones stated that next year, the Auxiliary will try to follow through with the suggestion of Dr. Howard, that the women get involved in politics. The MSMA Auxiliary will have a day at the Legislature which has been set for April 12. She indicated that they will try to get the women to meet their representative and senator. She asked the Council to inform her if there is anything that the Auxiliary might be able to do for them.—**Referred to Reports of Officers Committee.]**

REPORT OF THE HEALTH CARE FOUNDATION

■ A report on the Health Care Foundation was presented by the Chairman, Hector W. Benoit, Jr., M.D. He prefaced his remarks by informing the Council that the Board would hold a meeting on Sunday afternoon. He stated that the Council had been circularized regarding their opinion of the Foundation requesting federal funding. The report that was received indicated that the Council does not wish the HCF to solicit federal funds for financial support on projects at this time. The osteopathic comments were that if we need the funds, we should apply for such funds. The Board is now in the process of developing an Advisory Board of Consumers. We hope to get an interested, contributing group of citizens from outside of the medical field. We hope that they will be able to provide us with ideas which we might not be capable of generating ourselves and that, through them, we will have a sounding board and also gain public support.

The Board has agreed to open negotiations for the utilization of the computer program at the University of Missouri. Through this program, it is hoped to get an overview of what is being done, what should be done and how to alter plans as things go along. A committee of the Board met with Dr. Allen and Dr. Stewart of the University and will report to the Board on Sunday afternoon.

Dr. Benoit reported that there are still problems with the guidelines. He stated that they hope this will be resolved in the near future. Then, the Central Coordinating Committee will work to put the guidelines into booklet form so that the peer review panels can use them and can have something concrete when they sit down with HIC to develop a contract and derive financial support from them.

Dr. Benoit said that an increasing number of cases are being submitted to the Foundation for review. There has been trouble getting information for the transmittal form from the carrier, but, in turn, the carrier is having trouble getting this information from the provider. So far, 150 cases have been reviewed, and it is interesting to note that, unfortunately, most of the issues have been questions of fees for services rendered.

Dr. Benoit indicated that Mr. Mark Halvorson has been hired full time in the office. He is doing an excellent job. His ability to take over and grasp the nature of the problem is a tribute to him and a tribute to Mr. Royal O. Cooper, who worked in a part-time capacity.

Discussion followed concerning federal funding for the Foundation. A fee for service arrangement with the government was discussed as an alternative plan to a federal grant for funding.

A question was introduced regarding rotation of the members of the regional review panels. Originally, these M.D.s were appointed by the Councilors, but it is the intent of the Board to rotate them on a regular basis. The Board hopes to accomplish this within the next year. There is no provision in the Bylaws of the Foundation at this time for the rotation of the panels and the Central Coordinating Committee, but it was suggested that perhaps the Board could come to the Councilors and together they could set up regulations for this rotation process.

Dr. Benoit stated that to date the Foundation had acquired about 27% response from the osteopaths and 18% from the M.D.s for participation in the Foundation. The response is not as big as had been expected. Solicitations will again be sent in February and March, and the Foundation will have booths at the annual meetings of the MAOPS and MSMA.

After a brief discussion, on motion of Dr. Gunn, duly seconded, the report of the Health Care Foundation was accepted.—**Referred to Resolution Committee.]**

REPORT OF THE DIRECTOR OF THE MISSOURI DIVISION OF HEALTH

■ Dr. Domke reported that the State Board of Health, in conjunction with the Department of Education, is in the process of developing an improved health education program in the schools. The proposed program, to become fully operational, requires a span of four years and covers a broad range of topics. Dr. Domke stated that it was his understanding that Dr. Miller would be invited to speak at a meeting that will be called by the Department of Education in March. He recommended that the Council basically take the same position as the Board of Health—to provide support for the general plan to improve the presently inadequate health education system in schools. He also urged MSMA to support the position of the Board of Health in requesting that prompt attention be given to VD education.

Dr. Domke next reported on the smallpox vaccination problem. He stated that there is professional disagreement as to whether or not routine vaccination is necessary. He said that the Board of Health took the action to recommend the appointment of a statewide epidemiological consultation committee to the Division of Health. Dr. Domke stated that the Division of Health is in a position in which it is not recommending to the Missouri Legislature any change in regard to the present statute that requires smallpox vaccination to enter school. He stated that the Division of Health will invite MSMA to appoint one or more members to this Epidemiological

Consultation Committee in the next month or two. Dr. Domke then commented on several items that had been discussed earlier, one of which was Dr. Miller's remarks regarding RN-Midwifery and the attempt being made to get an Attorney General's opinion. He said that if an Attorney General's opinion was to be obtained, he could see some hazards in moving too quickly for such an opinion. He indicated that he will be happy to work with Dr. Miller and professional groups if they desire to obtain the Attorney General's opinion.

Dr. Domke then discussed the Hospital Discharge Summary program that has been run for several years by the Division of Health. He stated that the program gets information on approximately 80% of the hospital discharges in the state. This program is a task force to develop a state center for health statistics. One of the concerns of the task force is to look into the data on the use of hospital facilities. He said that he felt that MSMA ought to know and understand this task force better.

In conclusion, Dr. Domke said that he would mention two things that he felt will be important issues in the next few years. The first is home health services. He said that home health services are sensible in two ways: (1) It is much more economical to give care in the home than it is in the hospital unless daily visits are necessary and (2) any aged person is happier at home than in an institution. Dr. Domke stated that 25% of the home health services that had been developed had gone out of business because of complications with rules and third party carriers. He stated that he had no specific recommendations at this time, but he would like to have the earliest possible participation of MSMA in this matter.

The second issue that Dr. Domke discussed was the environment. He said that he felt that there is little understanding in the state legislature or by newspaper editors concerning some health problems involved in our environmental situation. He had no recommendation regarding this, but he hopes that there might be an opportunity to develop some interaction between the Association and the Division of Health in this matter.

Dr. Miller, on behalf of the Council, expressed appreciation to Dr. Domke for his participation in the deliberations of the Council. Dr. Miller also indicated that we are fortunate in having Dr. Bradshaw on the Board of Health. Dr. Miller then brought up a resolution to be submitted to the Council for approval. The resolution reads as follows:

> Whereas, Good health is essential to all citizens of Missouri, and
>
> Whereas, There is a real need to provide comprehensive health instruction at all grade levels, especially at an early age, to all students in elementary and secondary schools, and
>
> Whereas, There is a special need to make our young people aware of the dangers inherent in communicable diseases, in drug abuse and alcoholism, and
>
> Whereas, The Missouri Department of Education in cooperation with the Missouri Division of Health is working to provide improved health education in the schools of Missouri, and
>
> Whereas, There needs to be legislation in Missouri to make certain that all of our youth be appropriately educated in the many areas of personal and social health on a planned instructional basis in our schools, therefore be it
>
> *Resolved*, That the Missouri State Medical Association endorses the principle of required comprehensive health education instruction in our schools, and be it further
>
> *Resolved*, That all county medical societies in Missouri be urged to work with their local school districts to assist them in providing comprehensive health education programs, and be it further
>
> *Resolved*, That the state colleges of Missouri be urged to prepare qualified health instructors and to make certain that all teachers are appropriately trained to integrate health concepts into all the courses which they teach.

On motion of Dr. Miller, duly seconded, it was moved that this resolution be adopted so that it may appropriately stem from the actions of the Council and be processed for deliberation by the House of Delegates in April. Motion carried.

On motion of Dr. Bradshaw, duly seconded, the President was instructed to appoint members of MSMA to serve on the Epidemiological Consultation Committee at the request of Dr. Domke. Motion carried.—**Referred to Miscellaneous Affairs Committee.]**

COUNCILOR DISTRICT REPORTS

■ *District #1*—Dr. Martin commented on some remarks made by Dr. Domke. He stated that obtaining funding for home health services is a real problem in his area. He said that doctors spend hours at committee meetings to try to get help from state and federal agencies, but this effort had not been too successful.

Dr. Martin then commented on the environmental issue. He stated that the health industry needs to get involved in things in a community and work through the Chamber of Commerce to stop some of the pollution.—**Referred to Miscellaneous Affairs Committee.]**

■ Dr. Martin said that there had been real concern expressed in his district in regard to admission to medical schools. He said that physicians in the area would like to know who does the selecting and how students are selected. He stated that the chief complaint is that the applicants received no response at all from some schools. **—Referred to Medical Education and Public Welfare Committee.]**

■ Dr. Martin then stated that there had been a problem with the JCAH in regard to delineation of hospital privileges on hospital staffs. He indicated that the hospital accreditation board asked the doctors to sign a list as to what they wanted to do, and that some doctors in his area are quite upset over this.

During discussion, Dr. Benoit pointed out that in 1971, the JCAH issued a new book, "What It Takes to Maintain Accreditation of Hospitals," supported by the AMA Council on Medical Education, and he felt that some of the problems with JCAH could be worked out through studying this book.

Dr. Miller stated that he listened to the deliberations of the JCAH at the AMA meeting in June and he felt that the JCAH was doing a good job and that the new directives issued by the JCAH would help solve some of the problems in hospitals.

On motion of Dr. Bradshaw, duly seconded, it was agreed that the Chairman appoint a committee of the Council to study the above matter further. Motion carried.—**Referred to Miscellaneous Affairs Committee.]**

■ *District #3*—Dr. Franklin stated that the St. Louis Medical Society Installation of Officers was held on January 11. Dr. F. Eugene Pennington was installed as the Society's 124th President. He indicated that the meeting was well attended and that Dr. Miller, Mr. McIntyre and Mr. Cooper had attended the meeting. Dr. Franklin said that Dr. Pennington's inaugural address was excellent and that he brought out several fine points in his speech.—**Referred to Reports of Officers Committee.]**

■ Dr. Franklin stated that through the joint effort of the city and county societies, a Committee for Emergency Medical Care was formed. Its purpose is to improve the system of emergency medical care and the transportation of the sick and injured in the St. Louis area by coordinated efforts by private groups and public officials. The Environmental Health Committee has been working on the air pollution problem. Dr. Franklin stated that these committees have been successful because the committees have gone out into the community and have met with civic leaders. Through a similar effort, an Insurance Liaison Committee, consisting of representatives of HIC, the Blues and both medical societies, has been activated. During discussion in this committee, it is hoped that an increased understanding of the problems and aspirations of the others may be brought about. During the year, the societies are planning to continue being active in community affairs.—**Referred to Reports of Officers Committee.]**

■ *District #4*—Dr. Hetlage reported that he has a very active district and that what he says also represents ideas of a group of bright, young physicians from his district, as well as his own. He stated that he was very impressed with the effectiveness of Councilor District activities which are developing to the benefit of the State Society.

He reported that they have had several meetings with Blue Shield in regard to their comprehensive UCR Plan and had a good deal of input. He said that Blue Shield is at the point of presenting this to the County Societies and it is a good plan.

Dr. Hetlage stated that at his Councilor-Officer meetings, the following things have been discussed and are being reported for the information of the Council: Rural counties still want investigation as to the distribution of physicians in the state. They feel that they are on the short end of the stick. They also would like to see an increase in the amount of medical school students and graduates, feeling that if there are more graduates, a few more might filter down to the rural areas. He said that his district favors an interim session.

Dr. Hetlage stated that his district has a very active interest in Continuing Medical Education, and there has been discussion along that line. They are also moving to increase their participation in ARCH and RMP.

Dr. Hetlage indicated that a considerable amount of money is involved in carrying out the duties of a Councilor. His District has been discussing this and they feel that a lot of good can come out of more communication. His societies have suggested that a membership assessment or payment by the societies of possibly $2 per member be made in order to increase the amount of communication in the Councilor District be considered.

Dr. Hetlage reported that he is blessed with another fine new President of St. Louis County in Dr. Jack Eidelman and suggested that, possibly, Dr. Eidelman's speech at the installation might be reprinted, at least in part, in MISSOURI MEDICINE, along with Dr. Pennington's. Dr. Miller had previously suggested such consideration. On motion of Dr. Hetlage, duly seconded, it was agreed that the speeches of Drs. Pennington, Eidelman and Kuenzi be submitted to the Editor of MISSOURI MEDICINE

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for abstraction and editorial consideration.—**Referred to Reports of Officers Committee.**]

■ *District #5*—Dr. Cope reported that several physicians from Boone County were willing to offer their credit for building a hospital extension. Each would indebt himself for a definite sum to get the ball rolling. It seems that in Clay County, the same thing has happened and it went to the State Supreme Court and was declared unconstitutional and illegal. The physicians did not put up the money. They thought they could borrow the money and the hospital would repay the loan. The State Supreme Court indicated that this is only a means to circumvent an election of the people. The lender was the one who brought suit in Clay County to determine if it were legal. Dr. Cope stated that this was only for the information of the Council in case other physicians were doing this.

Dr. Cope spoke regarding the difficulty in communicating with the membership and stated that he felt communications is a real problem. Dr. Cope suggested that if the Council wants good communications, it must be willing to support it financially. Dr. Cope complimented Dr. Hetlage for the excellent job he is doing in communicating with the physicians in his district. He further indicated that he felt the most pressing problem the MSMA has at the present time is communications.

Dr. Cope stated that we presently have a communications committee which was set up for a specific purpose following the last Annual Session.

He moved that the existing communications committee or another committee be appointed specifically for communications, with the idea that a very substantial budget will be given to them to be used in communications itself or in their research regarding communications. Motion duly seconded and carried.—**Referred to Reports of Officers Committee.**]

■ *District #6*—Dr. Bradshaw reported that he recently called the Council's attention to the high cost of abortions just across the state line in Kansas. He stated that the costs are higher now than they were at that time.

Dr. Bradshaw reported that his area has become organized as a 314 B agency in Comprehensive Health Planning and that he has been impressed with attendance at these meetings, although there is a definite lack of physician attendance.

Dr. Bradshaw echoed Dr. Hetlage's remarks regarding the rural physician and said that he feels there needs to be a complete reevaluation of what is happening in rural Missouri in regard to loss of medical personnel.—**Referred to Medical Education and Public Welfare Committee.**]

■ *District #7*—Dr. Chandler reported that the Jackson County Medical Society met on January 24 and the Executive Council discussed HB 1325, which is now being considered by the General Assembly. This bill would require the state to pay a third of the amount by which costs exceed receipts of city, county, district or nonprofit, publicly-supported hospitals. Dr. Chandler stated that the Council of Jackson County Medical Society adopted the following resolution and requested that he present it to the Executive Council of MSMA for consideration and possible action.

Resolved, That the Jackson County Medical Society endorses House Bill No. 1325 which is being considered by the 76th General Assembly of the State of Missouri; and be it further

Resolved, That the Jackson County Medical Society requests the Missouri State Medical Association to endorse House Bill 1325 and to work actively for passage of said House Bill in the current session of the General Assembly.

Brief discussion followed. Dr. Mayer reminded the Council that the bill, in fact, carries a rather large fiscal note. He suggested that when MSMA asks the Legislature to support such a bill that some consideration should be given to how they might effectively finance it.

Dr. Miller moved support for Dr. Chandler's resolution. Motion seconded and carried.—**Referred to Miscellaneous Affairs Committee.**]

■ Dr. Chandler presented a letter to the Council which Jackson County Medical Society had sent to its membership regarding one of the provisions of the Economic Stabilization Act regulations, namely, the posting of a notice in the doctor's office indicating that fee schedules are available. This letter was accompanied by an actual card which could be posted in the doctors' offices. Dr. Chandler stated that he felt many physicians are not aware of this regulation and suggested that, possibly, some of other local societies might wish to do a similar mailing. Dr. Chandler indicated that the interpretations of the regulations are subject to change or modification.

Dr. Chandler reported that because of the growth in the number of physicians who are members of Jackson County, their delegate strength has increased from 26 to 28 for this coming Annual Session.

He reported that Jackson County held its President's Dinner earlier this month and it was attended by a larger group of people than anyone can remember in recent history. Dr. Carl Peterson, an outstanding physician, was installed as President.

Dr. Chandler indicated that Jackson County has been looking into auto leasing by the Society and has had several companies bid on this and they have presented interesting figures.

Dr. Cope suggested that possibly the card regarding Phase II fee schedule posting could be sent out to all members by the State Society for the benefit of the entire membership.

Dr. Stricker then suggested that the other Councilors might send a letter similar to the one sent by Dr. Cope on the Health Care Foundation to their respective districts.

Lengthy discussion followed regarding whether or not the Phase II card and the Health Care Foundation letter should be sent individually or combined.

Dr. Benoit stated that the HCF is planning a second mailing in the middle of February and another in March. He indicated that he felt the Board would be glad if the State Medical Association would underwrite the cost of the February mailing and have it accompany a letter from individual Councilors.

It was pointed out by several of the Councilors that they did not feel that a double mailing would be good, and they suggested that the two items be sent individually.

Following further discussion, Dr. Hetlage made the following motions:

1. That MSMA underwrite the February mailing of the Health Care Foundation—such mailing to be made over the Councilors' signatures and on the Councilors' stationery.
2. That the Phase II card to be mailed by MSMA be

included with a letter of explanation to be written by Mr. Carroll and Mr. Smith and be submitted for consideration on Saturday morning.

The motions were duly seconded and carried.—**Referred to Resolutions Committee.]**

■ *District #9*—Dr. Stricker reported that his district is trying to set up a dinner meeting with the legislators of the area.

District #10—Dr. Hansbrough stated that he felt the greatest problem MSMA has is communications and stated that he feels that communications should work both ways. He indicated that this is very important and that members be polled on issues. They would like to suggest things to do.

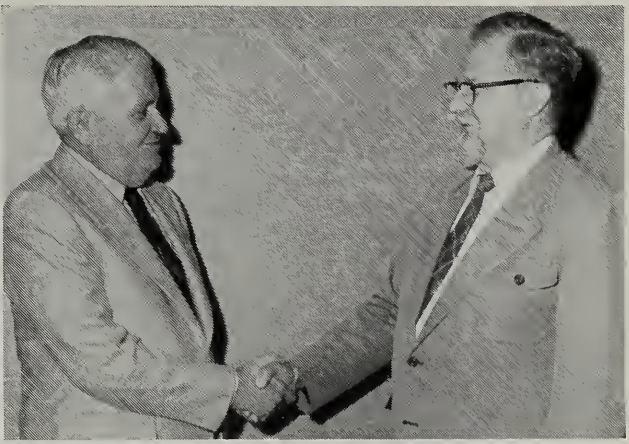
He reported that Doctors' Park in Cape Girardeau has been opened. They presently have 24 physicians and three dentists, and each has his own office. These physicians are in small groups. Dr. Hansbrough stated that he felt this is a very fine way to practice medicine and it probably will qualify for some type of HMO in the future. The Corporation takes care of the park maintenance, roads and grounds, and you build your own building.

Dr. Hansbrough then called the Council's attention to an article which appeared in the January, 1972 issue of *Medical Opinion* entitled, "Doctoring the AMA: A Plea for Change." Dr. Hansbrough distributed copies of this article which attacked the AMA for the manner in which our present AMA President has been treated. He indicated that he felt this article should be given serious thought.—**Referred to Reports of Officers Committee.]**

AD HOC COMMITTEE REPORT ON PHYSICIANS' ASSISTANTS

■ Dr. Hetlage commented on the minutes of the meeting of the Ad Hoc Committee to Study Physician Assistants which was held on January 12 in St. Louis. The Committee met to consider a resolution submitted to the Council by Dr. Hetlage encouraging legislation to be introduced with respect to certification of physician assistants. At its December meeting, the Council recommended that the "resolution be accepted and be referred to the Ad Hoc Committee on Physician Assistants for study; and appropriate legislation be considered which would provide for certification of physician assistants under the State Board of Registration for the Healing Arts." The report of the Ad Hoc Committee, as distributed to the Council, indicated the following recommendations:

1. Information given to the committee would indicate that standards for accreditation of physician assistant training programs have been established within the AMA and that the institution of a national mechanism for accreditation of such programs may be no more than a few months away. In this connection, the committee would prefer national accreditation standards to local standards and a national process to one which could function only within the State of Missouri.
2. The committee and its consultants would not find the present proposed version of the act relating to physician assistants acceptable without extensive modification, including elimination of language the committee considers equivalent to mandatory individual licensure.
3. Even with such modifications, the committee has serious questions with respect to legal implications of the act, particularly regarding liability. In addition, in the absence of any indication from the State Board of Healing Arts that it is prepared to accept the new responsibilities (including program accreditation) given it under the proposed act, the committee could not recommend support of the act even if amended without such a commitment from the State Board of Healing Arts.
4. The committee, therefore, recommends that the Council not take action with respect to the proposed act until Mr. John Noble, legal counsel, and Mr. John Hailey, Executive Secretary of the State Board of Registration for the Healing Arts, be consulted.



Newly-elected Council Chairman James C. Cope *(right)* of Columbia (Fifth District) welcomes Dr. Claude W. Cooper of Thayer who was elected Councilor for the Ninth District to replace President-Elect E. A. Stricker on the MSMA Council.

Dr. Hetlage stated that after his resolution was accepted by the Council, he contacted Dr. Klippel and some revisions were proposed in the bill. He said that the committee meeting was quite lengthy, but when he left the meeting, he was confident everybody was in agreement that this is a law they could live with. Then, apparently, the committee sat down and wrote an adverse report. He stated that he, individually, disapproved of it inasmuch as it really doesn't represent what he thought was the mood of the meeting. He said that the latter three recommendations defeat the entire thing.

Dr. Hetlage then called on Mr. Hailey, Executive Secretary of the State Board of Registration for the Healing Arts, to speak to this subject. Mr. Hailey stated that he could not speak for the Board and he did not have Board approval to be present at the meeting. He stated that the Board did look at the bill, but no decision was made on it. He said that the bill, as it is written at this point, would do three things: (1) Certify doctors to administer a physician assistant, (2) certify the physician assistant and (3) certify the school or training program for the physician assistant. He stated that the beginning work on the certification would be done by a Committee and not by the Board. The Committee that would be appointed would necessarily know more about this operation than the Board would know. Mr. Hailey stated that he has been involved with this bill because as soon as it was drafted, it came to him from the Comptroller's Office for a fiscal note. Mr. Hailey anticipated, as wild guess, that with the fee set-up in this bill, the income from it would be approximately $14,000 the first year and thereafter in the neighborhood of $17,000 to $22,000, with anticipated $8,000 to $10,000 expenses for operation.

Mr. Hailey recommended that Section 12 of the act which relates to funds received under this act being paid to the credit of the general revenue be deleted. He stated that in the laws already set up under the State Board of Healing Arts, all funds collected go into the Healing Arts fund, and he asked that under this act, that funds collected would be taken care of in the same manner. Mr. Hailey stated that he did feel this could be administered as it is generally set up.

Mr. Hailey reported that they will probably have another 1,000 applicants to take the Boards between now and July. He stated that it was hard to tell if these physicians would stay in Missouri to practice. He did say that after the examination last May, before the applicants were told if they had passed, he had received more than 30 applications for reciprocity to other states.

Dr. William Mayer spoke to the bill indicating that in several places in the bill, the Board is given the responsibility of approving the academic program, and he feels this should be changed since it is not consistent with the responsibilities of the State Board.

Dr. Hetlage stated that he was not necessarily pushing this bill or law as written per se, but is pushing for a law to do the three things mentioned by Mr. Hailey. He said that he and his district do not want to see PA programs developing in this state in an uncontrolled manner.

Mr. Hailey stated that the Federation of State Boards Annual Meeting will be held early in February and there will be a discussion of a uniform practice act for PAs. It was suggested that, possibly, Mr. Hailey could let us know the outcome of that meeting.

Dr. Miller stated that he was not sure that the Council needed to discuss the act. As he understands it, Dr. Hetlage's comments are directed at the recommendations of the Committee. They asked us to delay taking any action on this for reasons that Dr. Miller thinks, at least in part, are valid. The Committee asks that the Council not take action regarding the act until thorough consideration and discussion be given to it by Legal Counsel and Mr. Hailey. Its concern is based on many things one of which is that the AMA may be on the verge of establishing a national protocol relating to PAs. Dr. Miller indicated that he felt there is significant reason to support the recommendation of the Ad Hoc Committee.

Dr. Gulick indicated that if we think the PA Program is going to help in the delivery of medical care where it is needed, we are sadly mistaken.

Dr. Hetlage stated that Dr. Klippel is interested in this, since Forest Park Junior College is starting a program in April. He further stated that other schools may not wish to start programs unless there is something to back them up. Dr. Hetlage stated that we probably shouldn't move too fast on legislation, but he indicated that legislation will go on with or without our input.

Dr. Benoit stated that he felt there was no need to move fast and indicated that he thought the Ad Hoc Committee was giving the Council good advice.

Dr. Hetlage stated that he highly disapproved of one phrase in the Committee's report under #2 which states, "The committee and its consultants. . . ." He said that the consultants all seemed satisfied that this was a law they could live with.

Dr. Gunn stated that the AMA reported in 1970 that out of 116 PAs licensed or certified, 98 stayed at the University teaching hospital where they were trained.

Dr. Hetlage said that he did not want his assistants to function as PAs without some kind of legal way of controlling them. He would like certification to fall back on.

Following further discussion, Dr. Hetlage made the following motion, "I feel this report should not be accepted and should be referred to a committee for further study." Motion was seconded by Dr. Gunn and carried.

Mr. Hailey made a few brief remarks regarding his request for emergency appropriations, indicating that after the March examinations, there would be no money left for the June examinations, unless the appropriation is received. He stated that it looks good at this point. Dr. Mayer stated that he felt that perhaps the Legislative Committee of MSMA might be able to work with the Board to try to do something about resolving this yearly problem of the Board regarding appropriations. **—Referred to Miscellaneous Affairs Committee.]**

REPORT OF THE SPEAKER OF THE HOUSE OF DELEGATES

■ Dr. Imes requested that the Councilors urge the societies in their districts get resolutions into the MSMA office in time to get them into the Handbook. This was brought about by the deluge of resolutions that were introduced from the floor in the 1971 opening session. Mr. McIntyre pointed out that this issue had been considered by the Committee on Constitution and Bylaws and their recommendations will be presented for Council approval.

Dr. Imes asked that the Councilors send to Mr. McIntyre names of members they wish to recommend for Reference Committees.

Dr. Hetlage introduced Dr. Vernon H. Balster, who is Secretary of St. Louis County Medical Society.**—Referred to Reports of Officers Committee.]**

REPORT OF DEANS OF MEDICAL SCHOOLS

■ Dr. Mayer, Dean of the University of Missouri-Columbia Medical School, reported that there has been some concern expressed about the admission policies regarding medical students, who are physicians' children. He presented figures for 1972 which indicate that more than 60 or 11% of the 570 Missouri applicants are children of physicians and that, to date, 12% of the Missourians accepted are physicians' children. Dr. Mayer said that the University had submitted a grant application to Washington to make an in depth study of what factors influence individuals to go into the practice of medicine in rural areas.

Dr. Mayer presented statistics on the age factor in the AMA Officers, Board of Trustees and House of Delegates. These figures reiterate the fact that young physicians are not involved enough in organized medicine. He said that he would like to obtain the same information on the MSMA Officers, Councilors and House of Delegates.

On motion of Dr. Miller, duly seconded, it was agreed that Dr. Mayer be granted permission to obtain this information from the AMA and that he be commended. Motion carried.

Due to the absence of Dr. Noback, Dr. Miller gave the report on the University of Missouri-Kansas City Medical School. Dr. Miller gave a progress report on the medical school. He indicated that Year 1 & 2 students had completed their first semester and were beginning the second semester. These students are in eight hospitals for their introduction to medicine course work. Year 3 and Advanced Students have finished their first quarter on the docent units and in their second quarter are following various rotations in hospitals in Kansas City.

The Dean has met with the Education Committee of the Kansas City Chapter of the Academy of Family Practice to ask their help in suggesting practitioners with whom Year 2 students may have a preceptor assignment and Year 4, 5, or 6 students may have a one-month elective in Primary Care/Office Practice. Dr. Miller reported that Dean Noback has asked for our assistance in interpreting two things: First, the emphasis on bringing students in at the Year 1 level rather than Year 3 and, second, that the rate of student build-up is relatively rapid for a new school and consistent with the ability to do a solid job.

A ground breaking ceremony for the new building for the medical school was held on January 18 and is scheduled for completion in January, 1974.—**Referred to Medical Education and Public Welfare Committee.]**

REPORT OF THE COMMITTEE ON LEGISLATIVE AFFAIRS

■ Dr. Matthews reported that the legislature had been in session for one month, but that many of the bills in which we are interested have not been acted upon. He gave short reports on several of the bills in which we are interested. They are as follows:

> *House Bill 1032*—Provides $4,000 per year subsidy for Missouri students attending two private medical or two private osteopathic schools. A hearing will be held on February 1. The committee is in favor of supporting this bill as in the last session.
>
> *House Bill 1053*—Seeks to change statute of limitations in malpractice cases. Dr. Matthews stated that MSMA, in conjunction with the hospital group and insurance groups, have prepared substitutes for this bill. Mr. Cooper indicated that Judge Cullen Coil would appear as a witness for the bill.
>
> *House Bill 1093*—Would allow chiropractors to use physiotherapy. There will be a hearing on this bill on February 8.
>
> *House Bill 1261*—Allows the state cancer hospital to take full-pay patients after priority given to indigent and then those able to pay for part of care.

On motion, duly seconded, the report of the Legislative Committee was approved.

During discussion, it was pointed out that at the Friday session, a resolution introduced by Jackson County was passed. The resolution called for the MSMA to actively support House Bill 1325. Dr. Matthews indicated that the Legislative Committee was in favor of the bill, but questioned just what was meant by working actively for passage of the bill.

Also discussed were points regarding the rules of the Council. It was questioned whether or not the rules of the Council had been followed in regard to the handling of House Bill 1325.

On motion of Dr. Cope, duly seconded, it was agreed that a committee of the Council, including Mr. Noble, be appointed to further develop rules for conducting Council affairs. It is requested that this committee report at the next Council meeting on April 5, 1972. (A committee of Mr. Noble and Drs. Cope, Hetlage and Chandler was appointed at the Executive Session.)—**Referred to Miscellaneous Affairs Committee.]**

Dr. Benoit introduced Mr. Mark Halvorson who is the Executive Vice-President of the Health Care Foundation.

REPORT OF THE AD HOC COMMITTEE ON CONTINUING MEDICAL EDUCATION

■ Dr. Young reported that a meeting of his committee was held on January 16. This meeting was one in which new members were oriented in regard to the history of the committee. Dr. Young said that he was impressed with the quality of the men who were appointed by the Councilors and that these men were interested and indicated a good deal of knowledge of the problems involved.

Dr. Young said that he would like to present for information the present status of the MECO program. Hospitals have been surveyed through a questionnaire as to whether or not finances were the reason for their not participating in the MECO program. He stated that he hadn't received any answers that indicated that finances were obstructive to their participating in the program. He indicated that the demand from students was greater than that of the hospitals. The ratio was three to four students per hospital slot. It was suggested that the MECO program be presented to RMP for possible presentation at the "Large & Small Hospital Organization for the '70s" that will be held on March 9 at the Ramada Inn in Jefferson City.

On motion of Dr. Hetlage, duly seconded, it was moved that the MECO program be presented to RMP for possible presentation at the "Large & Small Hospital Organization for the '70s." Motion carried.

Dr. Young stated that his committee was involved in two major areas of business concerning continuing medical education: (1) Carrying out of Phase I and Phase II of the Continuing Medical Education program for the state and (2) Defining and developing an Accrediting Agency for Continuing Medical Education for the state.

Dr. Young indicated that he had received a letter from the AMA offering help to state associations that are trying to develop an accrediting agency for continuing medical education. He said that he would be in Chicago in the near future and that he would contact the AMA and seek their support in helping us develop an accrediting system. He indicated that he would like Council approval of his approaching the AMA for guidance and support in developing an accrediting system.

On motion, duly seconded, it was agreed to support Dr. Young in his efforts to obtain AMA support and help for developing an accrediting system for continuing medical education within the state. Motion carried.

Dr. Young stated that the committee would like to develop a workshop sometime in the spring. He indicated that at this workshop, attention would be called to the problems and needs presented by the CME District Directors. Dr. Young stated that all of the CME District Directors would be invited to this workshop along with the Council, Officers and osteopathic physicians.

Dr. Young indicated that although no formal program had been worked out, the committee felt that a minimum budget of $500 would be needed to conduct this workshop. He asked that the Council approve the committee's request for this money.

During discussion of the committee's request, it was indicated that several national speakers would be asked to participate in this workshop and that, possibly, the committee might need more than the minimum budget that was proposed. Dr. Young indicated that he had not given any consideration to a maximum budget.

On motion of Dr. Miller, duly seconded, it was proposed that the Council support the development of a workshop and that after a formal program had been proposed along with a proposed budget, the Council would consider proper funding for this workshop. Motion carried.

A discussion was held in regard to various videotapes that have been developed to present the problems of continuing medical education and tapes that would be helpful as an instruction in the planning and development of continuing medical education.

On motion of Dr. Miller, duly seconded, the report of the Ad Hoc Committee on Continuing Medical Education was accepted.—**Referred to Medical Education and Public Welfare Committee.]**

REPORT OF THE COMMITTEE ON CONSTITUTION AND BYLAWS

■ Dr. Hollweg had recommendations for changes in the Constitution and Bylaws. It was agreed by the committee to recommend amending Article IV of the Constitution, entitled "House of Delegates," line 3, by striking the period after the word "societies" and inserting the words, "as well as all Past-Presidents of the Association who will serve as Delegates at Large." It also was agreed to amend Chapter III, Section 2 of the Bylaws, entitled "House of Delegates," by adding the sentence, "All Past-Presidents of the Association shall serve as Delegates at Large," after the period following the word "Societies" on the final line of the section.

The committee proposes to amend Chapter III, Section 2, line 11, following the semicolon after the word "composed" by adding the following words: "And provided that when two or more counties hereafter combine into a hyphenated society, such society shall not lose any delegates by reason thereof; . . ."

The committee had several recommendations regarding the junior membership classification in the Bylaws. These are to amend the Bylaws by striking the Junior Membership definition in Chapter I, Section 3, and substituting the following definition: "Junior members shall be limited to those members of component medical societies who are serving a full-time training internship or residency in a hospital approved by the American Medical Association and shall enjoy all of the privileges of active membership," and to further amend Chapter VIII, Section I(a) line six by striking the words, "one-half of the per capita levy for active members," and inserting the words, "$10 per year."

And to further amend the Bylaws, Chapter VIII, Section 1 (b) Lines 2 and 3 by striking the words "and $5.00 per year on each junior member." And, finally, by amending the Bylaws, Chapter VIII, Section 3 by adding the words "and Junior" after the word "active" and before the word "member."

The fourth item on the committee's report concerned the possibility of developing a special membership classification for students. The committee believes that such a membership avenue for students is already open in our "Association member classification" and recommends that all county societies who do not have such a classification should develop one and encourage students to become "Associate members."

During discussion on this item, it was suggested that a representative from each of the four medical schools in the state be chosen to serve as a delegate at the annual meeting. These representatives would have voice but no vote. It will be the responsibility of the Dean of each school to see that these representatives are elected by due process.

On motion of Dr. Miller, duly seconded, it was agreed to take up the matter of student representatives for the House of Delegates at the Executive Session. Motion carried.

The next item on the report would allow members of the Association to initiate petitions to seek a vote of MSMA members on major issues. The amendment would change Article IX of the Constitution, line eight, by adding the following paragraph after the period, "Petitions signed by 20% of the members of the Association, including petitioners representing at least one half of the component medical societies, will initiate a referendum regarding changes in the Constitution or Bylaws or questions before the House of Delegates or Council. A majority vote of all members of the Association shall determine the question."

The last item on the report was concerned with the introduction of resolutions at the House of Delegates. The committee recommended to the Association office that an effort be made to encourage the early introduction of resolutions. The committee further recommends that the House adopt the following policy concerning the introduction of resolutions:

> "All resolutions to appear in the Handbook must be received at the Association office 45 days prior to the opening session of the House. Any resolutions to be introduced after that time must be made available to the House of Delegates 24 hours before the sessions at which it is to be introduced. At least 200 copies of the resolution must be supplied by the individual or society introducing the resolution. At the second session of the House of Delegates the same procedure would be followed, but such introduction would be allowed only if approved by two-thirds of the delegates voting. The same procedure would be followed for the third session, but at that time it would take unanimous vote of the House to allow such introduction."

The Council suggested that the above recommendation be amended to state, "At least 200 copies of the resolution or funding for same must be supplied. . . ."

During discussion, it was pointed out that this would change the manner in which we do business and would take a resolution from the Council that would be introduced at the House of Delegates.

On motion of Dr. Miller, duly seconded, the report of the Committee on Constitution and Bylaws was accepted as amended.—**Referred to Constitution and Bylaws Committee.]**

APPROVAL OF LETTER REGARDING MEDICARE BULLETIN

■ At the Friday session, there were several items that were tabled until the Saturday session. The first was in regard to a letter that was to be sent to our congressional delegation in Washington, to General American Life Insurance Company and to the National and State offices of the SSA. This letter would be a reply to the Medicare Bulletin that stated that Part B Medicare would refuse to pay for the services of auxiliary personnel employed by the physician and would refuse to pay for the services of a physician rendered to an immediate relative or to a member of his household.

On motion of Dr. Miller, duly seconded, the letter, developed by Dr. Cope, was approved as submitted.

APPROVAL OF LETTER REGARDING PHASE II REGULATIONS

Mr. Carroll read a proposed letter that he and Mr. Allen Smith had prepared to be sent to the membership in regard to a Price Commission Phase II ruling.

On motion of Dr. Hetlage, duly seconded, this letter was approved.—**Referred to Resolutions Committee.]**

MSMA SPONSORSHIP OF TOURS

■ On Friday, Mr. Cooper had given members of the Council information regarding MSMA sponsorship of tours. On motion of Dr. Hetlage, duly seconded, it was agreed that MSMA would accept in principle the sponsoring of educational tours.

Mr. Cooper asked the group if they were interested in any of the tours that were offered in the booklet he had passed out.

On motion of Dr. Hetlage, duly seconded, it was agreed that MSMA accept the Caribbean Cruse but that future decisions be made by a representative committee with staff assistance.

Dr. Hetlage said that he wished to express his appreciation to Dr. Mayer and the University for their close cooperation with the Council this last year.—**Referred to Reports of Officers.]**

EYE BANKS

■ Dr. Allen expressed concern about the problem eye banks are having in getting eyes for transplants. Due to the increased number of donor cards being signed because of the Uniform Anatomical Gift Act, the banks are having problems getting doctors to leave their offices and come and remove the eyes. He stated that in some other states, morticians were being allowed to remove eyes. Dr. Allen stated that he would like to attempt to get information from other states and wanted to be sure that there was no objection from MSMA.

On motion of Dr. Miller, duly seconded, it was agreed to approve of this concept.—**Referred to Miscellaneous Affairs Committee.]**

EXECUTIVE SESSION

■ At the close of the Council's regular agenda business, the Council went into Executive Session at which a number of matters were considered. One item considered was the following resolution regarding medical student involvement in MSMA activities, which was presented by President Miller for the Council's consideration:

MUNNS
MEDICAL
SUPPLY

at

1432 Hanley Industrial Drive
St. Louis, Mo.

Topeka — Kansas City — Wichita

Whereas, The MSMA encourages the active participation of medical students in the affairs of the organizations of the medical profession; and

Whereas, The MSMA has made available to medical students Associate membership in the MSMA and its component local medical societies; and

Whereas, The MSMA believes that the majority voice of medical students should be heard and considered formally by the MSMA; therefore, be it

Resolved, That the MSMA shall make available in its House of Delegates four seats for duly elected representatives of the four schools of medicine in the State of Missouri; and be it further

Resolved, That the Deans of the medical schools be requested to cause to be elected from the student body of each of their institutions one student Delegate to the MSMA, the only prerequisite being that said student Delegate shall be an Associate member of the MSMA; and be it finally

Resolved, That the four student Delegates shall be seated in the House of Delegates as full voting members of the House with all of the rights and privileges pertaining thereto.

After discussion and on motion of Dr. Miller, duly seconded, this resolution was accepted and also is being printed in the resolutions section of the Delegates' Handbook.—**Referred to Constitution and Bylaws Committee.]**

■ Another item discussed represented a report by Dr. Matthews, Chairman of a special committee appointed by the Council composed of himself, Dr. Gulick and Mr. McIntyre, which is charged with the responsibility of looking into various possibilities in Jefferson City for consideration of the establishment of a permanent headquarters for the Missouri State Medical Association in the Capitol City. He stated that various possible locations have been investigated which would be close to the State Capitol. He reported that in the best judgement of the committee, the establishment of a permanent headquarters facility would, in the long run, cost somewhere around $125,000. The committee was directed by the Council to continue its investigations and report back to the Council.

NEXT COUNCIL MEETING

The next Council meeting will be held on Wednesday, April 5, at the Muehlebach Hotel in Kansas City, preceding the 1972 Annual Session.—**Referred to Reports of Officers Committee.]**

Supplementary Council Report

Dr. Stricker then presented a supplementary report on the Council Meeting held on Wednesday evening, April 5 at the Muehlebach Hotel in Kansas City. He reported as follows:

"The Council met in Room 365 of the Muehlebach Hotel in Kansas City on Wednesday, April 5, 1972, with all members of the Council and officers present. The Chairman called the meeting to order at 7:30 pm.

"The Chairman called for approval of the Minutes of the Council Meeting of Jan. 28-29, 1972. On motion of Dr. Gunn, duly seconded, the minutes were approved as published.

"Mr. McIntyre announced that one of our staff members, Mr. Bob Carroll, Executive Assistant, has accepted the position of Executive Vice-President of the Missouri Savings and Loan League, effective May 1. The Council expressed their appreciation for the many contributions made to the Association by Mr. Carroll.

"Mr. McIntyre reported that Dr. Miller recently received a letter from Dr. Stuart Exon, President of the Missouri Inter-Agency Council on Smoking and Health, requesting a donation of $500 for the continuation of their program for the coming fiscal year. It was pointed out that other groups who have been supporting this Council have reduced their financial support.

"After discussion, on motion of Dr. McAlhany, it was agreed that the Council send a reply stating that the Association has not budgeted for this and although they approve of the idea in principle, they cannot help with financing this endeavor. Motion carried.

(The Speaker referred this portion of the report to the Reference Committee on Reports of Officers.)

"Dr. Cope called attention to a letter received by Boone County Medical Society regarding a proposal for a Cancer Detection Clinic on the grounds of the Ellis Fischel State Cancer Hospital in Columbia. It was pointed out that this proposal had not been presented to the Council and it was suggested that Dr. Cope invite representatives of the Ellis Fischel Cancer Hospital to present this proposal to the Council at its meeting in June. On motion of Dr. Bradshaw, seconded by Dr. McAlhany, it was agreed that this invitation be extended.

(The Speaker referred this portion of the report to the Reference Committee on Miscellaneous Affairs.)

"Mr. McIntyre announced that Congressman Durward Hall will be the featured speaker at the General Luncheon on Saturday in the Colonial Ballroom and urged all to attend this luncheon.

"Legal Counsel reported that the Curteman Case, in which the Association has been involved for some time, has been submitted to the Missouri Supreme Court and the Court's decision can be expected before long.

"Legal Counsel also reported that the court case involving the MSMA and the Health Care Foundation of Missouri is in the hands of the Circuit Court of St. Louis County. The case is pending on motions filed by the Health Care Foundation and MSMA. Suggestions in support of the motions have been filed with the Court and a decision on the motions can be expected possibly within the next few weeks.

(The Speaker referred this portion of the report to the Reference Committee on Resolutions.)

"Dr. Matthews presented a brief report on the status of legislation concerning the practice of medicine. Considerable discussion followed regarding the position of some of the bills now under consideration. On motion of Dr. Miller, duly seconded, the Legislative Report was accepted.

(The Speaker referred this portion of the report to the Reference Committee on Miscellaneous Affairs.)

"The Ad Hoc Committee on Health Manpower submitted a report of the meeting with representatives of the nursing profession of Missouri concerning mutual problems to the Council for informational purposes only. After discussion, on motion of Dr. McAlhany, duly seconded, it was agreed to accept this report as a progress report and that the Committee be directed to continue this study.

(The Speaker referred this portion of the report to the Reference Committee on Medical Education and Public Welfare.)

"Dr. Miller introduced the subject of nurse midwifery and said that there is a need for very careful scrutiny of proposed changes in the nursing practice act concerning utilization of personnel and use of physician assistants. He stated that he was hopeful that the Council would pursue the study for midwifery.

(The Speaker referred this portion of the report to the Reference Committee on Miscellaneous Affairs.)

"At the direction of the Council, the President appointed an Insurance Advisory Committee to study the existing insurance programs available to the MSMA membership through the Association and to make recommendations regarding future expansions. On motion of Dr. Gunn, duly seconded, it was agreed that the Insurance Advisory Committee should make appropriate recommendations regarding these programs and report to the Council within the next six months.

(The Speaker referred this portion of the report to the Reference Committee on Reports of Officers.)

"Dr. Miller reported on a meeting cosponsored by MSMA and several other organizations regarding the Large and Small Hospitals of the 1970s. This meeting was attended by more than 300 physicians, hospital administrators and trustees from all over the state. There was good response to the material presented and a number of suggestions made relative to changes in the format. He stated that there was a real need for this type of program and hoped it would be continued.

(The Speaker referred this portion of the report to the Reference Committee on Miscellaneous Affairs.)

"Dr. Miller called attention to a communication received from Dr. Rikli concerning a University Extension Consumer Health information program for the development of the informed and activated Consumer of Health Care Services. Dr. Mayer explained the concept of the program, stating that pilot studies were planned in three different areas of Missouri. It was the consensus of opinion of the Council that additional information be obtained and that this project be studied further by the Public Affairs Commission of the Association. On motion, duly seconded, the Council referred this program to the Public Affairs Commission.

(The Speaker referred this portion of the report to the Reference Committee on Miscellaneous Affairs.)

"Dr. Miller reported that the American Society of Internal Medicine and the American College of Pathology have developed a program for self-evaluation of laboratory services. After discussion, it was decided to make this information available to the membership.

(The Speaker referred this portion of the report to the Reference Committee on Resolutions.)

"Dr. Miller reported that the MSMA has received requests from three Missouri SAMA Chapters for financial support to assist the Chapters in sending representatives to the National SAMA Meetings. This contribution would be in addition to the Annual Contribution of $100 made to the National SAMA organization. Dr. Miller recommended that a total of $500 be included in the 1973 budget for SAMA activities—$100 to each SAMA Chapter in Missouri and $100 to SAMA National. On motion, duly seconded, the Council agreed to accept this recommendation.

(The Speaker referred this portion of the report to the Reference Committee on Reports of Officers.)

"Dr. Franklin, Chairman of the Council Communications Committee, reported that award winners have been selected in the first annual MSMA Medical Journalism competition. These awards will be presented at the Annual Banquet Saturday night. On motion, duly seconded, this report was accepted.

(The Speaker referred this portion of the report to the Reference Committee on Miscellaneous Affairs.)

"Dr. Hetlage called attention to the passing of Mr. Ed Mothershead, who was Executive Secretary of St. Louis County Medical Society, and suggested that the Council address a letter to Mrs. Mothershead expressing our regret at his passing and expressing our appreciation for the work that he has done. It also was reported that Mrs. Terry Watson has been appointed Executive Secretary of the St. Louis County Medical Society. On motion, duly seconded, the Council agreed to forward a letter to Mrs. Mothershead.

(The Speaker referred this portion of the report to the Reference Committee on Reports of Officers.)

"Dr. Mayer, a member of the Executive Committee of the National Board of Medical Examiners, reported that the Executive Committee has voted to provide examination for physicians' assistants.

(The Speaker referred this portion of the report to the Reference Committee on Miscellaneous Affairs.)

"Dr. Bradshaw requested additional financial and staff assistance for the Public Affairs program of the Woman's Auxiliary, which was approved by the Council.

(The Speaker referred this portion of the report to the Reference Committee on Reports of Officers.)

"The Council recommends to the House of Delegates that the House in due session authorize the purchase of a suitable, permanent home for the Association in Jefferson City. This purchase can now be made with available funds without assesment to the membership and can be expected to effect a considerable saving to the Association over a number of years. The Council asks approval by the House and that the expenditure therefore be considered as being included in the budget.

(The Speaker referred this portion of the report to the Reference Committee on Reports of Officers.)

"Mr. Speaker, this concludes the Council's deliberations."

On motion, duly seconded the supplementary report of the Council was accepted.

Introduction of New Business

Dr. Miller named the following members to the Committee on Nominations: Drs. Donald Kuenzi, Phillip Foreman, Eugene Pennington, Jack R. Eidelman, Hugh E. Stephenson, Richard King, Carl M. Peterson, Walter A. German, Claude Cooper and Kirby Turner.

The Speaker invited the introduction of new business.

The Speaker noted that since Resolutions #1 through #19 had been submitted to the Council and were included in the Delegates Handbook, their introduction from the floor was not required. These resolutions are as follows:

Resolution #1—Delegates for Specialties

(Introduced by Cole County Medical Society)

Whereas, Medicine in Missouri involves a broad spectrum of different types of practice, including family practice and all specialties, and

Whereas, The House of Delegates of the Missouri State Medical Association represents the unified view of medicine in Missouri, and

Whereas, Each of the aforementioned types of practice has the potential of contributing significantly to the deliberations of the House of Delegates of the Missouri State Medical Association, therefore, be it

Resolved, That each group represented on the Interspecialty Commission of the Missouri State Medical Association have one Delegate to the House of Delegates of the Missouri State Medical Association provided that at least 75% of that group be members of the Missouri State Medical Association.

(Referred to the Reference Committee on Constitution and Bylaws.)

Resolution #2—Autonomy for Board of Healing Arts

(Introduced by Cape Girardeau County Medical Society)

Whereas, The Board of Registration for the Healing Arts has been charged with the responsibility of administering the spirit and law of the Medical Practice Act, and

Whereas, This responsibility has been met with dedication and forthrightness, and

Whereas, The Board of Healing Arts operates on registration fees paid by the Doctors of Medicine and Doctors of Osteopathy, and

Whereas, The Doctors covered by the Healing Arts Board are the most learned of professions, and

Whereas, The Legal Profession is not included in the proposed centralization of operation, therefore, be it

Resolved, That the Healing Arts Board be permitted to maintain its autonomy.

(Referred to Reference Committee on Miscellaneous Affairs.)

Resolution #3—Insurance Coverage for Outpatient Care

(Introduced by Cape Girardeau County Medical Society)

Whereas, There is a general shortage of hospital beds; and

Whereas, The cost of medical care is high; and

Whereas, Most insurance policies are imperfectly structured so that increased hospitalization is encouraged; and

Whereas, Many conditions can be adequately diagnosed and treated on an outpatient basis; therefore, be it

Resolved, That the Missouri State Medical Association encourages insurance companies to restructure their policies so that necessary ambulatory diagnosis and treatment will be covered.

(Referred to Reference Committee on Resolutions.)

Resolution #4—Physician's Assistants

(Introduced by St. Louis County and St. Charles-Lincoln Medical Societies)

Whereas, The concept of the physician's assistants, assistants to the primary physician and other designated paramedical personnel programs are becoming increasingly acceptable by the public and by the medical profession as a means of extending the availability of medical care, and

Whereas, The House of Delegates of the Missouri State Medical Association in 1971 passed a resolution favoring the development of the physician's assistant concept, and

Whereas, The American Medical Association, through its various committees, is currently producing a policy on national certification standards, as well as a policy on training accreditation, and

Whereas, Proposed legislation has been introduced into the legislature of the state of Missouri designating certification of the physician's assistant and approval of training programs for physician's assistants under the Board of Registration for the Healing Arts, and

Whereas, the due legislative process may mean a reasonable delay in passage of such legislation, and

Whereas, There is a need for the Missouri State Medical Association to take a stand on the propriety and ethics of the use of physician's assistants who ultimately will be certified under state law, therefore be it

Resolved, That the House of Delegates of the Missouri State Medical Association go on record as favoring the use of physician's assistants by primary physicians as adjuncts to individual practice where the use of such assistants will greatly increase the availability and quality of medical care, and be it further

Resolved, That the House of Delegates further states its approval of the use of pediatric nurse assistants, urological and orthopedic assistants and other specialty assistants, trained under guidelines developed by their respective specialties, and be it further

Resolved, That the House of Delegates encourages the development of training programs for physician's assistants under the guidelines of accreditation to be forthcoming by the American Medical Association, and be it further

Resolved, That Missouri State Medical Association favors the passage of such legislation which will place control of the physician's assistant, and those physicians utilizing such services, under the Board of Healing Arts of the state of Missouri, and be it finally

Resolved, That this resolution be conveyed to the delegates of the American Medical Association, as an indication of the position of the Missouri State Medical Association relative to the position of the American Medical Association.

(Referred to Reference Committee on Miscellaneous Affairs.)

Resolution #5—The Propriety of Professional Public Communications

(Introduced by St. Charles-Lincoln Medical Society)

Whereas, The members of the medical profession have traditionally refrained from speaking out on public and social issues as physicians, and,

Whereas, This restraint has in part stemmed from broad interpretation of an old ethical principle discouraging advertising or public activities as nonprofessional conduct, and

Whereas, Various groups outside of the profession, including governmental departments and legislatures, have chosen to criticize the basic structure and intent of the health profession, and

Whereas, One important means for defending the profession and communicating the desire of the profession for socially- and economically-oriented changes from within is individual expression, and

Whereas, It is the duty of every member of the profession, as a leader in the community, to make his views and ideas known publicly, therefore be it,

Resolved, That the House of Delegates of the Missouri State Medical Association go on record as encouraging the initiative of those physicians who desire to speak out on public issues, and be it further

Resolved, That all groups and component societies of the Missouri State Medical Association be encouraged to participate in local, state and national issues as responsible physicians in order that the voice of organized medicine be heard, and be it further

Resolved, That this activity be considered proper and ethical within the state of Missouri, and be it finally

Resolved, That the opinion of the House of Delegates of the Missouri State Medical Association be conveyed to the House of Delegates of the American Medical Association through our delegates, in the form of appropriate resolutions.

(Referred to Reference Committee on Miscellaneous Affairs.)

Resolution #6—Medicaid Fee Reductions

(Introduced by Lafayette-Ray County Medical Society)

Whereas, The majority of physicians of the state of Missouri have cooperated fully with the State Division of Welfare in implementing the Welfare program known as Medicaid since it was instituted in 1966, and

Whereas, The majority of physicians of this state are still willing to cooperate fully to the best of their ability, and

Whereas, The State Division of Welfare has seen fit to reduce payment to 90% of the reasonable and customary fee since July, 1970, and

Whereas, The physicians of Missouri believe it to be unfair and unreasonable for them to be the only ones to be forced to subsidize the program, now, therefore, be it

Resolved, That the majority of physicians of this state strongly recommend that the State Division of Welfare return to full payment of reasonable and customary fees. If such action is not taken, then the Division should reduce payment of all employees of the Division of Welfare connected with the administration of the Medicaid program by the same percentage which the participating physicians have been forced to accept for the past 19 months.

(Referred to Reference Committee on Resolutions.)

Resolution #7—Health Education in Schools

(Introduced by the Council of the MSMA)

Whereas, Good health is essential to all citizens of Missouri, and

Whereas, There is a real need to provide comprehensive health instruction at all grade levels, especially at an early age, to all students in elementary and secondary schools, and

Whereas, There is a special need to make our young people aware of the dangers inherent in communicable diseases, drug abuse and alcoholism, and

Whereas, The Missouri Department of Education, in cooperation with the Missouri Division of Health, is working to provide improved health education in the schools of Missouri, and

Whereas, There needs to be legislation in Missouri to make certain that all of our youth be appropriately educated in the many areas of personal and social health on a planned instructional basis in our schools, therefore be it

Resolved, That the Missouri State Medical Association endorses the principle of required comprehensive health education instruction in our schools, and be it further

Resolved, That all county medical societies in Missouri be urged to work with their local school districts to assist them in providing comprehensive health education programs, and be it further

Resolved, That the state colleges of Missouri be urged to prepare qualified health instructors and to make certain that all teachers are appropriately trained to integrate health concepts into all the courses which they teach.

(Referred to Reference Committee on Miscellaneous Affairs.)

Resolution #8—Representation from Medical Students

(Introduced by the Council of the MSMA)

Whereas, The MSMA encourages the active participation of medical students in the affairs of the organizations of the medical profession; and

Whereas, The MSMA has made available to medical students Associate membership in the MSMA and its component local medical societies; and

Whereas, The MSMA believes that the majority voice of medical students should be heard and considered formally by the MSMA; therefore, be it

Resolved, That the MSMA shall make available in its House of Delegates four seats for duly elected representatives of the four schools of medicine in the state of Missouri; and be it further,

Resolved, That the Deans of the medical schools be requested to cause to be elected from the student body of each of their institutions, one student Delegate to the MSMA, the only prerequisite being that said student Delegate shall be an Associate member of the MSMA; and be it finally

Resolved, That the four student Delegates shall be seated in the House of Delegates as full voting members of the House with all of the rights and privileges pertaining thereto.

(Referred to Reference Committee on Constitution and Bylaws.)

Resolution #9—Health Care Foundation Membership Encouraged

(Introduced by Jackson County Medical Society)

Whereas, One essential ingredient of professionalism is the continuing evaluation of the competence of each individual professional by his fellow professionals, and

Whereas, The ultimate objective of this evaluation procedure, commonly referred to as peer review, is to increase the knowledge and improve the skills of all professionals so that they, in turn, can better serve society, and

Whereas, The medical profession historically has accepted and utilized peer review in many areas of professional activity, and

Whereas, The Missouri State Medical Association has helped plan and establish the Health Care Foundation of Missouri in order to formalize peer review in an orderly statewide system, therefore be it

Resolved, That the Missouri State Medical Association encourages and urges its individual members to join the Health Care Foundation of Missouri and to participate in the activities of the Foundation, as a demonstration of their individual professionalism and an expression of their collective desire to provide the citizens of Missouri with the best possible medical care.

(Referred to Reference Committee on Resolutions.)

Resolution #10—Pollution Control

(Introduced by Cole County Medical Society)

Whereas, Environmental pollution has proven to be damaging to the health of Missourians as well as to our natural resources, and

Whereas, The Missouri State Medical Association and its physician members are vitally interested in the health of Missourians as well as the preservation of our natural resources, and

Whereas, Physicians have long been involved in research efforts which have associated environmental pollution with diseases, and with correction of the hazards, and

Whereas, Missouri already has a number of laws in this field as well as some being studied by the current legislative session, therefore be it

Resolved, That the Missouri State Medical Association supports reasonable legislation in the field of pollution control, and be it further

Resolved, That the medical profession, due to its expertise in relating diseases to pollution, should have representation on all of the boards involved in environmental pollution control policy so as to insure a healthful environment.

(Referred to Reference Committee on Miscellaneous Affairs.)

Resolution #11—Medicaid Fee Assignment

(Introduced by St. Louis Medical Society)

Whereas, Under the present Medicaid Program (Title 19) in Missouri, physicians must sign participation agreements and accept assignment and there is no way in which patients on welfare can pay their physician directly without sacrificing government subsidy, and

Whereas, This procedure acts to limit the welfare patient's choice of physicians, and

Whereas, There is an implication in this procedure that patients on welfare are dishonest, and

Whereas, There is no relationship between poverty or riches and honesty, and

Whereas, The Missouri State Medical Association should work to see that those on welfare not be denigrated, and

Whereas, The Missouri State Medical Association should promote the widest possible choice of physician, therefore be it

Resolved, That the House of Delegates of the Missouri State Medical Association request the Legislature of the state of Missouri and the Congress of the United States to require the Medicaid program to offer a choice of assignment or non-assignment to those patients covered by Medicaid.

(Referred to Reference Committee on Resolutions.)

Resolution #12—Insurance Coverage for Ambulatory Care Center Patients

(Introduced by St. Louis Medical Society)

Whereas, Many insurance contracts direct patients whose illnesses and defects could be attended in the setting of an ambulatory care center to a more expensive hospital setting, and

Whereas, In various studies some 25% of patients in hospitals could be treated in ambulatory care settings, therefore be it

Resolved, That the Missouri State Medical Association request that the Legislature of the state of Missouri direct the Insurance Commission to enforce rules for: (1) The payment of equal insurance benefits for the same services wherever delivered, and (2) That payment by third party payers for service be given preference when these services are delivered in the most appropriate, least expensive setting.

(Referred to Reference Committee on Resolutions.)

Resolution #13—Support for Ambulatory Care Center Legislation

(Introduced by St. Louis Medical Society)

Whereas, Increasing hospital costs and poor design of insurance programs have led to increasing cost of medical care, and

Whereas, Facility support is acknowledged by many third party payers insofar as licensed hospitals are concerned, and

Whereas, Facility support is not given in non-hospital settings, and

Whereas, If facility support were given by third party payers to ambulatory care centers, these centers could develop a fuller range of services and thereby prevent unnecessary hospitalization, therefore be it

Resolved, That Ambulatory Care Centers be defined and licensed by the state of Missouri. Features of such Ambulatory Care Centers would include, but not be limited to, the following: Outpatient surgery, full range of radiographic and laboratory services, one-stop multispecialty organizations with common records and transferability of records to other licensed medical facilities.

(Referred to Reference Committee on Miscellaneous Affairs.)

Resolution #14—Admission Policies, Missouri Medical Schools

(Introduced by Clay County Medical Society)

Whereas, Quality health care for Missouri citizens is dependent largely on the quality of doctors entering, and graduating from Missouri medical schools and,

Whereas, The competition from prospective students for places in classes in Missouri medical schools is keen, and, Whereas, Missouri doctors believe that selection of students for places in medical school classes should be based on academic performance in premedical education, the character of the applicant and his sincere motivation to become a medical doctor who will bring his skill, knowledge and dedication to bear on meeting the health care needs of our citizens and without regard for ethnic, racial or social background, and,

Whereas, Many Missouri doctors have learned the past year of alleged discriminatory policies in admission practices in Missouri medical schools—these practices being leveled against the sons and daughters of Missouri physicians who have made application to Missouri medical schools—especially at the University of Missouri at Columbia, and

Whereas, A quota system in the admissions policy at the University of Missouri Medical School at Kansas City has been developed which requires acceptance of 25% female applicants, and,

Whereas, The Missouri State Medical Association fully recognizes the significant contribution that women physicians have made to the advancement of health care in Missouri, and,

Whereas, Women medical graduates tend to statistically be less productive in medical services than their male counterparts, largely because of perfectly reasonable and understandable devotion to their duties as wives and mothers, and because it seems that a 25% quota of women medical graduates may well not get as much medical care delivered to the citizens of Missouri as if some of those places had been granted to men students, be it therefore

Resolved, That Missouri medical school applicants be selected entirely on their academic qualifications, character references and dedication to pursuing a productive and service-to-patient oriented medical care, and be it further

Resolved, That consideration of social background, race, ethnic background and sex by admissions officers and committees of Missouri medical schools all be eliminated, and be it finally

Resolved, That a copy of this resolution be sent to the deans, admissions officers and committees of the four existing medical schools of Missouri.

(Referred to Reference Committee on Medical Education and Public Affairs.)

Resolution #15—Current Procedural Terminology

(Submitted by Clay County Medical Society)

Whereas, Government and other third party agencies are insisting on precise definition of medical procedures and services, and

Whereas, The American Medical Association has devised a uniform terminology known as Current Procedural Terminology, and

Whereas, Many sister states have adopted this Current Procedural Terminology to be used in dealings with third party agencies, therefore be it

Resolved, That the Missouri State Medical Association adopt the Current Procedural Terminology as defined in the Second Edition or subsequent editions of Current Procedural Terminology and published by the American Medical Association.

(Referred to Reference Committee on Resolutions.)

Resolution #16—Support for Fee for Service Medical Care

(Introduced by Clay County Medical Society)

Whereas, An unusual amount of attention is being focused upon health care delivery in the United States, and

Whereas, The basic issue in the health care delivery controversy lies between fee for service medicine and other means of compensating physicians, such as by salary or through a Health Maintenance Organization-like structure, and

Whereas, In all forms of health care delivery except fee for service medicine, the physician is working for an entity or organization or in the government service and not the patient himself, and

Whereas, Experienced physicians in the private, fee for service, health delivery system know, without question, that the best health care and the most responsible health care, with the best continuity and preventive facets and the most efficient system and, in the last analysis, the most economical health care is provided when a physician works for a patient on a one-to-one basis for a fee which is mutually agreeable to both the physician and the patient, and

Whereas, Available information about the quantity, quality and economy of health care delivery as provided by Health Care Maintenance Organizations, governmental departments and community clinics is uncertain and without statistical proof of superiority, and

Whereas, There seems to be great government support for pouring large sums of tax money into the development of a health care delivery system through Health Maintenance Organizational-like structures that do not take into account the responsibility, the efficiency and the economy of a doctor working directly for his patient for a fee, therefore, be it

Resolved, That the House of Delegates of the Missouri State Medical Association go on record as supporting the fee for service method of health care delivery or some variation thereof, as being the system of choice in providing the maximum quantity of quality health care, and be it further

Resolved, That our support of this type of health care delivery system and the reasons, therefore, be made crystal clear to the Executive Branch of the Federal Government, to the Federal Legislature, to the Chairman of the House Ways and Means Committee, to the Secretary of Health, Education and Welfare and to the citizenry of Missouri.

(Referred to Reference Committee on Resolutions.)

Resolution #17—Medicare Payments

(Introduced by Clay County Medical Society)

Whereas, The hospitals and doctors of Missouri have, in good faith, participated as providers of care for Medicare patients since the beginning of the Title XVIII program, July, 1966; and

Whereas, The hospitals and doctors, in many cases, have been arbitrarily denied payment for the partial or total cost of patient care of Medicare beneficiaries; and

Whereas, This has resulted in payment to the hospitals of less than actual cost for the care of those patients; and

Whereas, The result has been to force hospitals and doctors to charge non-Medicare patients more than their fair share of the total and necessary costs of operation; and

Whereas, This is contrary to the intent and provisions of Title XVIII of the Social Security Amendment; and

Whereas, There is no administrative or judicial appeal procedure for doctors and hospitals under the Medicare program; and

Whereas, This is contrary to the principles of "due process of law" which is basic to our American system of jurisprudence; and

Whereas, There have been unreasonable periods of delay in settling claims and cost reports submitted by hospitals and doctors causing undue financial hardships to providers in the program; and

Whereas, Administrators of the Medicare program have denied or delayed payments justly due to providers (doctors and hospitals) contrary to the intentions of the program and the direction of Congress and against the best long-run interests of the program and its beneficiaries; therefore be it

Resolved, That the House of Delegates of the Missouri State Medical Association hereby petitions the Members of the Congress of the United States to use their offices to bring the Medicare program, as administered by the Social Security Administration, in compliance with the intent of Congress in the right of doctors and hospitals to due process of law by providing by amendment to the Medicare law a means of judicial appeal from adverse decisions of the Social Security Administration Intermediaries and carriers in the administration of the Medicare Law.

(Referred to Reference Committee on Resolutions.)

Resolution #18—Refusal to Furnish Itemized Bill

(Introduced by Clay County Medical Society)

Whereas, The Department of Health, Education and Welfare has instructed its carriers in the following manner:

> "A patient's statement or SSO report may indicate that an attempt was made to obtain an itemized bill from the physician or supplier, but the physician or supplier refuses to furnish the bill *until it is paid*. The carrier should in such cases contact the physician or supplier, or when it appears necessary, the local medical society in an effort to resolve the problem. If appropriate the carrier may suggest that beneficiary file a grievance with the society." (HEW Part B. Intermediary Manual HIM-14 Sect. 6325 Paragraph E 8-71)

and

Whereas, The Medicare concept is a contract between only the patient and the Federal Government for reimbursement of medical costs, the carrier cannot legally interfere with a private physician's office policies; and

Whereas, The contract for medical services is entered into by physician and the patient and not the carrier, any interference by the carrier in the fulfillment of this contract would be a direct violation of the *Rights* of the physician; and

Whereas, If this became common knowledge, it would promote a situation to willfully defraud the physician; and

Whereas, If this were allowed to happen it would force the physician into an untenable position where his only recourse would be to participate in an unrealistic federalized program; and

Whereas, This is not discrimination against one segment of the population, but a long standing tradition of dealing with insurance carriers of questionable integrity, therefore be it

Resolved, That the House of Delegates of the Missouri State Medical Association go on record as being against this illegal, unethical demand; and be it further

Resolved, That the House of Delegates of the Missouri State Medical Association recommend that the county medical societies take no action if a situation of this nature is called to their attention; and be it further

Resolved, That the Delegates of the American Medical Association be instructed to take such action as necessary to inform all

State and County Medical Societies of this flagrant violation of Physicians' Rights; and be it further

Resolved, That the Delegates to American Medical Association be instructed to take such action as necessary that would allow the American Medical Association to directly inform HEW of this violation of Rights.

(Referred to Reference Committee on Resolutions.)

Resolution #19—Support for Home Health Care

(Introduced by Clay County Medical Society)

Whereas, Inpatient medical care has been shown to be increasingly expensive, and

Whereas, Inpatient medical care now commands a large share of the American health care dollar, and

Whereas, Inpatient hospital care days, in many instances, can be shortened by arrangements for the patient's care and supervision in his home by qualified home health or Visiting Nurses at the direction of the patient's physician, and

Whereas, Public Law #89-97 provides for Home Health or Visiting Nurses care in Medicare and Medicaid patients, and

Whereas, Missouri doctors have, in good faith, tried to put this concept into effect in the interest of proper care of their patients and economic considerations, and

Whereas, Valid claims for Home Health and Visiting Nurses visits have repeatedly been denied by the fiscal intermediary, despite approval by a properly constituted utilization review committee, therefore be it

Resolved, That the House of Delegates of the Missouri State Medical Association go on record as favoring the concept of Home Health and Visiting Nurses care as a proper and economic way to bring quality health care to Missouri citizens not requiring more expensive and acute care, and be it further

Resolved, That the concept of skilled nursing care as opposed to domiciliary care be more succinctly defined, and be it finally

Resolved, That a copy of this resolution be sent to all of the fiscal intermediaries serving Missouri patients for their study and action.

(Referred to Reference Committee on Miscellaneous Affairs.)

Dr. Jack R. Eidelman introduced a resolution from the Fourth Councilor District.

Resolution #20—Opposition to Unwanted Retirement

Whereas, It is a widely recognized medical opinion that premature physical and mental degeneration among Americans 65 and older is being contributed to by forced retirement, and

Whereas, The anti-work provision of OASI (Social Security) forces the withholding of Social Security benefits from those who earn more than $1,680 per year, and

Whereas, Those who must work in order to maintain a decent standard of living are actually being deprived of those OASI payments which might make their lives a little easier, and

Whereas, Many other persons 65 and older are forced into an unwanted retirement in order to collect those benefits due them under OASI, and

Whereas, Rather than utilizing skills possessed by these persons, the government is, through the existence of these restrictions, actually forcing them into premature senility and dependence upon society, therefore be it,

Resolved, That the House of Delegates of the Missouri State Medical Association go on record as urging the exclusion of this arbitrary provision in the Social Security Act as detrimental to the health of those affected, as well as detrimental to the public welfare, and further be it

Resolved, That this resolution be introduced in the House of Delegates of the American Medical Association at its next annual session as an indication of our resolute disapproval of this principle.

(Referred to Reference Committee on Miscellaneous Affairs.)

Dr. K. Herbert Huber introduced a resolution from Lafayette-Ray County Medical Society.

Resolution #21—Reasonable and Customary Fees and the Legality of Such Contracts

Whereas, Insurance companies have assumed the role of the third party in medical care, and

Whereas, The state and federal governments have either directly or indirectly assumed the third party role in medical care by providing payment for hospitalization and physician care, and

Whereas, The third party carriers have stated that payment for physical care will be made on the Reasonable and Customary Fee basis, and

Whereas, Physicians have been asked to abide by this basis for payment and in many cases have been asked to sign statements agreeing to accept such payment as full payment, and

Whereas, By signing such a statement the physician is bound to a one-sided contract which forces that physician to accept the third party's opinion of what is Reasonable and Customary without recourse, and

Whereas, The Reasonable and Customary Fee is known only to the third party and no physician in the state is allowed to know this fee, and

Whereas, This type of contract constitutes an illegal contract, be it

Resolved, That the MSMA through its officers, Council and legal department take steps to force third party carriers to make known to all physicians of this state the Reasonable and Customary fees, and be it

Resolved, That if the third party is not cooperative in providing such information that the MSMA through its officers, council and legal department make a test case of the legality of such contracts by court action.

(Referred to Reference Committee on Resolutions.)

Dr. Arthur W. Neilson introduced the following resolution:

Resolution #22—In Support of the Missouri State Conservation Commission

Whereas, Enlarging and improving facilities for parks and playgrounds and facilities for camping and outdoor life leads directly to betterment of physical and mental health and offers opportunity for young and old to participate in enjoyable outdoor experiences, and

Whereas, The Missouri State Conservation Commission, as the result of an in-depth survey by conservation experts, has set out on an effort to expand greatly its programs for outdoor enthusiasts, while at the same time it is attempting to keep conservation out of politics in Missouri, therefore be it

Resolved, That the Missouri State Medical Association energetically supports the efforts of the Conservation Commission to expand the state's recreational facilities because such an expansion will lead to better physical health, better mental health and a fuller life for many Missouri citizens.

(Referred to Reference Committee on Miscellaneous Affairs.)

Doctor Neilson also introduced Resolution #23.

Resolution #23—Continuing Professional Education

Whereas, An outstanding feature of the national debate over the "Health Care Crisis" has been a widespread demand for quality controls to be imposed on the health system, and

Whereas, Continuing professional education for physicians is the most effective way to assure that high-quality health care is provided most efficiently, and

Whereas, Opportunities for continuing professional education for physicians tend toward geographical and institutional maldistribution, and

Whereas, Incentives for continuing professional education for physicians vary with individual physicians, and

Whereas, One of the essential features of professionalism is the advancement of the state of the art, therefore be it

Resolved, That the Missouri State Medical Association affirm its adherence to the principles of continuing professional education, and be it further

Resolved, That the Association devote its best efforts toward increasing and equalizing the opportunities and incentives for continuing professional education among the physicians of the state during the state meeting each year as a positive response to the national demand for efficient delivery of quality medical care.

(Referred to Reference Committee on Medical Education and Public Welfare.)

Dr. B. A. Moranville introduced a resolution from Boone County Medical Society.

Resolution #24—Smallpox Vaccination

Whereas, The United States Public Health Service has officially recommended that smallpox vaccination no longer be given to children routinely, and

Whereas, The American Academy of Pediatrics has officially concurred in this opinion, and

Whereas, Many physicians feel very strongly about the undesirability of giving routine smallpox vaccinations to children, therefore, be it.

Resolved, That the Missouri State Medical Association is opposed to the law which requires children to be vaccinated against smallpox before they can attend schools in the state of Missouri, and be it further

Resolved, That the Missouri State Medical Association recommends to the General Assembly of the state of Missouri that it remove the requirement for smallpox vaccination in this state.

(Referred to Reference Committee on Miscellaneous Affairs.)

Dr. Walter A. German introduced a resolution from Greene County Medical Society.

Resolution #25—Charges Imposed by Immediate Relatives

Whereas, In a letter from General American Life Insurance Company of St. Louis, Missouri, dated December, 1971, it is stated that: "You may have received telephone calls questioning claims on patients who have surnames identical to yours. The reason is that payment may not be made under Part B for expenses which constitute charges by immediate relatives of the patient or by members of his household. *The intent of this exclusion is to bar Medicare payment for personal services of physicians which would ordinarily be furnished gratuitously* because of the relationship of the patient to the physician imposing the charge. Payment may be made, however, for reasonable charges made to such patients by a physician to recover out-of-pocket expenses he has incurred, e.g., expenses for covered drugs and biologicals"; and

Whereas, Part B under Medicare specifically includes those people who pay a monthly fee for services as well as their previous Social Security payments; and

Whereas, Legally qualified physicians are entitled to a proper fee for a proper service; and

Whereas, The Medicare mechanism is not designed to control professional courtesy; now therefore be it

Resolved, That this regulation be rescinded; and be it further

Resolved, That a copy of this resolution be transmitted to the Health Care Foundation of Missouri with instruction to negotiate the intent of the above resolution; and be it further

Resolved, That a copy of this resolution be transmitted to Michael P. Ingrassia, Assistant Director, Professional Relations, General American Life Insurance Company; the Secretary of the Department of Health, Education and Welfare; the Director of the Social Security Administration; and to our Senators and Congressmen from Missouri.

(Referred to Reference Committee on Resolutions.)

Dr. Vance E. Link introduced a resolution from Jackson County Medical Society.

Resolution #26—Taxation of Hospitals

Whereas, The Jackson County Board of Equalization has raised a question as to the justification for hospital property in that county to continue to enjoy tax exemption;

Whereas, The Constitution and statutes of Missouri specifically exempt from taxation property used for charitable purposes and not held for private profit;

Whereas, The promotion of health, like the relief of poverty and the advancement of education and religion, is a charitable purpose deemed beneficial to the community as a whole, and accordingly non-profit hospitals open to the public have traditionally been exempt from property taxation in Missouri and throughout the nation;

Whereas, There exists a national concern over the increasing costs of hospital care; and

Whereas, All hospital costs, including taxes, obviously must be borne by the patient who is the primary source of hospital revenues; now, therefore, be it

Resolved, That the Missouri State Medical Association hereby affirms its convictions that exemption from taxation of the property of non-profit hospitals open to the public serves a useful and necessary social purpose in reducing the cost of hospital services; further

Resolved, That this Association, while fully recognizing the rightful authority of the Jackson County Board of Equalization to inquire into the eligibility of the hospitals in that county to enjoy exemption from property taxes, expresses its opinion that the institutions whose tax-exempt status has been questioned are in fact non-profit hospitals open to the public and are, therefore, charitable in their purpose and operation; further

Resolved, That the Secretary send a copy of this resolution to each of the members of the Jackson County Board of Equalization.

(Referred to Reference Committee on Miscellaneous Affairs.)

Dr. Robert Mayer introduced a resolution from the Fourth Councilor District.

Resolution #27—Definition of Council Chairmanship

Whereas, Under the present Bylaws of the Missouri State Medical Association, the Chairman of the Council of MSMA simultaneously continues to function as District Councilor, and

Whereas, The demands upon his time as chairman make adequate representation of his district difficult, and

Whereas, The Chairman of the Council should represent the Council as a whole and the Society as a whole, rather than to be responsible or accountable to one councilor district, and

Whereas, No specific directive exists within the present Bylaws defining his position relative to the function of MSMA, therefore be it,

Resolved, That Chapter VI, Section I of the Bylaws of the Missouri State Medical Association be amended to read as follows:

Section I: The Council shall meet during the annual session, at such times as necessity may require, subject to the call of the chairman or on petition of three councilors.

It shall meet on the last day of the annual session to organize. The Council shall elect a Chairman and a Vice-Chairman for a term of one year.

The Vice-Chairman of the Council shall automatically succeed the Chairman of the Council. The Chairman may be reelected to serve not more than two consecutive terms of one year each. In the event the Chairman is reelected, the Vice-Chairman may also be reelected.

Upon his election to Chairman of the Council, the Chairman shall no longer be Councilor of his district, but shall serve as a ranking officer of the Society. The district supplying the Chairman of the Council shall elect a new Councilor at the annual meeting preceding installation of the Chairman. That Councilor elected will take office at the first Council meeting following the annual meeting.

The Chairman of the Council shall assist the President of the Society in representing the Society at official and social functions, as may be deemed necessary by the President or the Council. He shall guide the Council as moderator and speaker in its deliberations, and have an active responsibility within the Society for the initiation of policy.

As Chairman of the Council, he shall have no individual vote in Councilor decisions, except in the event of a tie vote, at which time he shall cast the deciding vote.

The Council shall, through the Chairman, make an annual report to the House of Delegates.

(Referred to Reference Committee on Constitution and Bylaws.)

Dr. George Lytton introduced a resolution from Jackson County Medical Society.

Resolution #28—Comprehensive Health Planning

Whereas, Comprehensive Health Planning (CHP) agencies are empowered to "review and comment" on applications for government health care programs, proposals for construction of health care facilities and plans for developing revised or new approaches to health care delivery; and

Whereas, It appears that government agencies, private donors and health insurance payors, when considering future investment of funds or manpower, will place increasing dependence upon the "comments" of CHP agencies; and

Whereas, The medical profession has a real and active interest in the continuing improvement of health care facilities, services and delivery systems; therefore, be it

Resolved, That the Missouri State Medical Association strongly recommends that component county medical societies and their individual members (1) make overt efforts to be informed of and participate in the activities of local CHP agencies and (2) offer their collective and individual consultative services to CHP studies and investigations; and be it finally

Resolved, That state and local CHP agencies in Missouri be informed of this resolution and of the medical profession's sincere desire to participate in comprehensive health planning.

(Referred to Reference Committee on Resolutions.)

Dr. G. Donald Shull introduced a resolution from Cole County Medical Society.

Resolution #29—Instruction in Medical Ethics, Jurisprudence and Organized Medicine

Whereas, A basic knowledge of medical ethics, jurisprudence and the functioning of county, state and national medical societies is essential for every physician, and

Whereas, A varying degree of emphasis is placed on these topics in medical schools and, also, in intern and resident training, and

Whereas, It is a matter of concern to the members of Missouri State Medical Association that these topics be given the necessary emphasis, now therefore be it

Resolved, That a special committee be developed under the Committee on Medical Education of MSMA to study present teaching in medical schools and in intern and residency training to evaluate what is currently being done in these areas, and be it further

Resolved, Where it is indicated, suggest to the medical schools and those responsible for intern and resident training specific programs to cover these areas, and be it finally

Resolved, To be prepared when requested to supply faculty from the membership of MSMA physicians in private practice to assist in teaching these topics in medical schools and for those conducting intern and resident training.

(Referred to Reference Committee on Medical Education and Public Welfare.)

Dr. J. C. Edwards introduced a resolution from St. Louis Medical Society.

Resolution #30—Tax Advantages for Self-Employed

WHEREAS, The present Nixon Administration and Congress is considering a bill to increase the Keough Plan for the self-employed to enable them to have many of the advantages of a corporation, and

WHEREAS, The only way a self-employed professional man may gain tax advantages for retirement and insurance programs approved by law to business corporations is to incorporate, be it therefore

Resolved, That the MSMA House of Delegates go on record as favoring the passage of the law to extend these advantages to self-employed and, therefore be it further

Resolved, That the MSMA House of Delegates instruct the President and Secretary of MSMA to so inform the Congressmen and Senators from Missouri and send them a copy of this resolution.

(Referred to Reference Committee on Miscellaneous Affairs.)

Dr. Hubert Ritter introduced a resolution from St. Louis Medical Society.

Resolution #31—To Maintain the Autonomy of The Healing Arts Board

WHEREAS, The Missouri State Board of Healing Arts has been charged with the responsibility of administering the spirit and law of the Medical Practice Act, and

WHEREAS, This responsibility has been met with dedication and forthrightness, and

WHEREAS, The Board of Healing Arts operates on registration fees paid by the Doctors of Medicine and the Doctors of Osteopathy, and

WHEREAS, The inclusion of this Board of Healing Arts, under a single licensing czar, can in no way enhance its operation and may serve as a political deterrent to efficient performance of its duties, be it therefore

Resolved, That the Missouri State Medical Association insists that the Board of Registration for the Healing Arts continue to operate in its present autonomous manner.

(Referred to the Reference Committee on Miscellaneous Affairs.)

Doctor Ritter then introduced a second resolution from St. Louis Medical Society.

Resolution #32—Re: House Bill 4960

(Medicredit Bill)

WHEREAS, The citizens of our country look to physicians to provide knowledgeable information regarding health care—and

WHEREAS, The American Medical Association is the voice of working physicians—and

WHEREAS, The American Medical Association through its "Medicredit Bill"—HR 4960—has sought to increase health care access without increasing cost and maintaining the quality which has become the hallmark of American medicine,

Be It Resolved, That the Missouri State Medical Association, convened at Kansas City, Missouri, April 7, 1972 go on record as endorsing HR 4960, and

Be It Further Resolved, That a copy of this resolution be forwarded to the Trustees of the American Medical Association.

(Referred to Reference Committee on Miscellaneous Affairs.)

Dr. C. Read Boles introduced a resolution from St. Louis County Medical Society.

Resolution #33—Pediatric Coordination Council of Missouri

WHEREAS, The uncoordinated proliferations of programs and legislation effecting child care in the state of Missouri has obstructed the effective utilization of limited funds and manpower to implement such needed care, be it

Resolved, That the MSMA shall support the creation of the Pediatric Coordination Council of Missouri, such Council to have effective representation from the MSMA, Missouri Chapter of American Academy of Pediatrics, the Missouri Board of Health, Missouri State Crippled Children's Service, the Missouri Division of Health, the Missouri Osteopathic Association and selected other major organizations which may have sufficient interest to warrant such representation. The purpose of this Council is to review and coordinate recommendations, programs and legislation pertinent to child care in the State.

(Referred to Reference Committee on Medical Education and Public Welfare.)

Dr. Donald E. Kuenzi introduced a resolution from Clay County Medical Society.

Resolution #34—Mandatory Labeling of Prescriptions

WHEREAS, At the present time, pharmacists throughout the state of Missouri do not, and are not required by law, to label every prescription which they fill unless the doctor so designates, and,

WHEREAS, The Missouri patient is becoming ever more and more mobile, and while under active medical treatment, finds himself often in locations other than his home area or even his home state, and,

WHEREAS, This patient often finds himself in need of medical care and either presents himself at an emergency room of a hospital or in a strange physician's office, and,

WHEREAS, Doctors more and more practice in groups, where they are seeing each other's patients and where the name and dosage of the medication which has been prescribed by one of their associates is essential information to afford intelligent and proper continuity of care to the patient in the absence of the prescribing doctor, and,

WHEREAS, There is rarely a time when the practicing physician does not want his patient to know the name and dosage of the medicine he takes, and,

WHEREAS, Situations are constantly arising where the name of the medication on the prescription bottle would be of invaluable assistance to the treating physician, now,

Be It Therefore Resolved, That the House of Delegates for the Missouri State Medical Association go on record as favoring legislation which would make it mandatory for the pharmacists in the state of Missouri to label each prescription which they fill with the exact name and dosage of the medication which has been prescribed, unless otherwise directed by the prescribing physician, and that the Missouri State Medical Association encourage other prescribing groups such as dentists and osteopaths to adopt this concept and work toward appropriate legislation, and,

Be It Further Resolved, That representatives of the Missouri State Medical Association offer their services to the General Assembly of the state of Missouri in drafting such legislation.

(Referred to Reference Committee on Miscellaneous Affairs.)

Dr. Paul L. Friedman introduced the following resolution:

Resolution #35—Restriction of Amphetamine Usage

WHEREAS, The Missouri State Medical Association House of Delegates at its 113th Meeting in 1971 passed a Resolution calling on its members to restrict their use of amphetamines and other stimulant drugs to the treatment of specific well-recognized medical indications such as narcolepsy, hyperkinesia, mild depression and starter doses for obesity, and

WHEREAS, That Resolution called for a copy to be sent to all members of the Association with an accompanying pledge asking each member to sign and return the pledge as evidence of their participation in the Resolution, and

WHEREAS, The Resolution called for publicity to be made of the fact that the physicians of the state of Missouri were planning to restrict their use of amphetamines, and

WHEREAS, The said announcement to the members of the State Association was made in an obscure fashion in an issue of MISSOURI MEDICINE, and

WHEREAS, Said publicity concerning the memberships' desire to restrict these amphetamines has never occurred, be it therefore

Resolved, That the House of Delegates of the MSMA direct the Council to mail to each and every member of the Missouri State Medical Association an individual letter containing a copy of the Resolution #33 passed at the 113th Annual Session of the MSMA House of Delegates, and be it further

Resolved, That the envelope containing the letter contain an addressed pledge card containing the first Resolve of Resolution #33, namely:

> "Therefore we, the Missouri State Medical Association, do hereby resolve to restrict our use of amphetamines and other stimulant drugs for the treatment of specific, well-recognized medical indications such as narcolepsy, hyperkinesia, mild depression and starter doses for obesity, and be it further

Resolved, That the news media be apprised of the fact that the mailing is being sent, when it is sent and that the news media be further informed of the results of returns of the pledge cards.

(Referred to Reference Committee on Medical Education and Public Welfare.)

The Speaker announced that due to the absence of Dr. Robert E. Dunshee, Dr. Troy Morgan had been appointed to serve on the Necrology Committee.

There being no additional business, the Speaker declared the first session of the House of Delegates adjourned.

SECOND SESSION
Friday, April 7, 1972

The Second Session of the House of Delegates was called to order at 4:05 PM in the Grand Ballroom by Dr. E. D. Imes, Speaker, who presided.

Dr. Gist, Chairman of the Credentials Committee, reported that a quorum was present.

The Speaker invited Dr. James J. Pascoe, Chairman of the Reference Committee on Necrology, to make his report.

NECROLOGY

The Reference Committee on Necrology met in Room 3 of the Muehlebach Hotel on April 6, 1972.

The Reference Committee on Necrology of the Missouri State Medical Association regretfully reports that there have been 64 deaths among members since the 1971 Annual Session, whose names are attached to this report.

Each of these members is missed as an individual and for his contributions to the practice of medicine and the Missouri State Medical Association. The loss of each member is keenly felt by our individual members, his loved ones and close associates and, we are confident, the patients he has served with dedication.

Condolences in the form of a tribute have been sent to the immediate family of each deceased member, and this expression will continue to be sent in the future.

With these thoughts in mind, the Necrology Committee offers the following resolution:

Be It Resolved, That the House of Delegates now stand for a moment of silence and prayer to pay personal tribute and to honor the memory of the 64 members we have lost this past year and whose names will be recorded in the minutes of this Annual Session.

Be It Further Resolved, That this moment of quiet and meditation will serve as a time of our individual rededication to our purpose in the ministry of medicine as we honor the names and unselfish devotion of all departed members of the Missouri State Medical Association, and

Be It Further Resolved, That we emulate their examples and praise God for good men and women.

Mr. Speaker, I move that the report of the Reference Committee on Necrology be approved.

(The motion to adopt the report was seconded and the Speaker asked the House of Delegates to stand for a moment of silence in indication of approval of the motion.)

Members Deceased Since the 1971 Annual Session

Lytle, W. R., M.D., Rolla
Foster, Jack Lee, M.D., Desloge
Bohne, William R., M.D., St. Louis
Wippo, E. W., M.D., St. Louis
Farthing, Fred R., M.D., Springfield
Gaskins, Charles W., M.D., Fredericktown
Reis, Carl J., M.D., St. Louis
Lohr, Curtis H., M.D., St. Louis
Dietrich, Karl David, M.D., Columbia
Polk, John W., M.D., Springfield
Baldwin, Paul, M.D., Kennett
Hardy, Joseph A., Jr., M.D., St. Louis
Larkin, Rosemary R., M.D., St. Louis
Hauptmann, William L., M.D., St. Louis
Graeser, Richard G., M.D., St. Louis
Magee, Charles D., M.D., St. Louis
Lowrey, Ford J., M.D., Kansas City
Efron, Joseph, M.D., St. Louis
Beckett, Theodore C., M.D., Boonville
Koehler, Charles A., M.D., Shawnee Mission, Kan.
McKinstry, Karl V., M.D., De Soto
Yuan, Louis S. K., M.D., St. Louis
Bess, William E., M.D., Sedalia
Correnti, Nicholas A., M.D., St. Louis
Kieffer, Roland S., M.D., St. Louis
Robinson, John A., M.D., Edgerton
Brady, Charles H., M.D., Sedalia
Engman, Martin F., M.D., St. Louis
Glassberg, Bertrand Y., M.D., St. Louis
Ellis, Calvin C., M.D., St. Louis
Burns, Thomas J., M.D., Springfield
Rice, Earl R., M.D., Ft. Lauderdale, Fla.
Atcheson, Bellfield, M.D., Kansas City
Nicolay, Kenneth S., M.D., Kansas City
Rollins, Harry D., M.D., Winona
Hogeboom, George W., M.D., Delray Beach, Fla.
Zillgitt, George H., M.D., St. Louis
Roberts, L. Marvin, M.D., Kansas City
Blacklock, David E., M.D., King City
Boteler, George M., M.D., St. Joseph
Enloe, L. David, M.D., Jefferson City
Shofstall, Charles K., M.D., Kansas City
Husted, George W., M.D., Parma
Miksicek, John E., M.D., St. Louis
Byers, Philip L., M.D., Kansas City
Feierabend, Frank L., M.D., Kansas City
Meagher, Arthur J., M.D., St. Louis
Schlenker, Lawrence, M.D., St. Louis
Tapp, Ernest M., M.D., Poplar Bluff
Miller, Oliver J., M.D., Cape Girardeau
Sherard, Julius, M.D., St. Louis
Summers, Caldwell B., M.D., Kansas City
McMahon, Bernard J., M.D., St. Louis
Balazs, Karl J., M.D., Port Charlotte, Fla.
Baumhardt, Edward E., M.D., Kansas City
Luedde, Fullerton W., M.D., St. Louis
Luter, Carter W., M.D., Butler
Schweitzer, Fred C., Jr., M.D., Springfield
Hosto, Leland E., M.D., St. Louis
Wilson, Hester J., M.D., Kansas City
Daman, George A., M.D., St. Louis
McCarroll, Henry R., M.D., St. Louis
Halpern, L. K., M.D., St. Louis
Walsh, Theodore E., M.D., St. Louis

The Speaker invited Dr. Melvin C. Kasten, Chairman, to present the report of the Reference Committee on Miscellanous Affairs.

MISCELLANEOUS AFFAIRS

The Reference Committee on Miscellaneous Affairs convened in Room 364 of the Muehlebach Hotel at 4

PM on Thursday, April 6, 1972, with Dr. Melvin C. Kasten, Chairman. All members of the Committee were present.

The official Reports of the Commission on Public Affairs, the Commission on Interspecialty Medicine, Committee on Legislative Affairs and Council to the House of Delegates which have been published and have been issued to each delegate to this convention and which were referred to the Miscellaneous Affairs Reference Committee were approved. The Committee also reviewed the reports of the ad hoc committees on Environmental Health, Medical Aspects of Sports and Health Care for the Poor and approved these reports as submitted.

The Committee also reviewed the Supplementary Report of the Council with the recommendation that special emphasis be placed on the importance of time in the further study by the Public Affairs Commission concerning a University Extension Consumer Health Information Program for the development of the informed and activated Consumer of Health Care Services.

All of these reports which were referred to the Miscellaneous Reference Committee at the meeting of the House of Delegates on April 6, 1972 were individually reviewed and accepted.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution #22—In Support of the Missouri State Conservation Commission

The Committee considered Resolution #22 which was submitted by Dr. Arthur Neilson of St. Louis Medical Society and which is entitled, "In Support of the Missouri State Conservation Commission." The Committee recommended that while the intent of this resolution is excellent, this resolution be referred back to the Council for further study.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and, after discussion, was defeated. Dr. Robert H. Felix, St. Louis, them moved that the House of Delegates approve Doctor Neilson's resolution without further consideration or amendments by the Committee. His motion was seconded and carried.)

Resolution #2—Autonomy for Board of Healing Arts and Resolution #31—To Maintain the Autonomy of the Healing Arts Board

The Committee considered Resolution #2 submitted by Cape Girardeau County Medical Society and Resolution #31 submitted by the St. Louis Medical Society. These two resolutions were considered as one and the Committee recommends adoption of Resolution #31.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Resolution #4—Physicians' Assistants

The Committee considered Resolution #4 which was submitted jointly by St. Louis County Medical Society and St. Charles-Lincoln Society. The Committee recommended approval of this resolution as written.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution #5—Propriety of Professional Public Communications

The Committee considered Resolution #5 which was submitted by St. Charles-Lincoln Medical Society. The Committee recommended approval of this resolution as written.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution #7—Health Education in Schools

The Committee considered Resolution #7, which was submitted by the Council of the Missouri State Medical Association. The Committee recommended approval of this resolution as written.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution #10—Pollution Control

The Committee considered Resolution #10, which was submitted by Cole County Medical Society. The Committee recommended approval of this resolution.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Resolution #13—Support for Ambulatory Care Center Legislation

The Committee considered Resolution #13, which was submitted by St. Louis Medical Society. The Committee recommended approval of this resolution as written.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded. Dr. Lawrence W. O'Neal of St. Louis, author of the resolution, moved to amend Resolution #13 by changing the first sentence after Resolved to read as follows:

> *Resolved*, That definition and licensure of ambulatory care centers be studied by the Legislature for the state of Missouri.

The motion to amend was seconded and approved. The motion to approve this portion of the report as amended was approved.)

Resolution #19—Support for Home Health Care

The Committee considered Resolution #19, which was submitted by Clay County Medical Society. The Committee recommended approval of this resolution as written.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution #20—Opposition to Unwanted Retirement

The Committee considered Resolution #20, which was submitted by the Fourth Councilor District. The Committee disapproved this resolution.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution #24—Smallpox Vaccination

The Committee considered Resolution #24, which was submitted by Boone County Medical Society. The Committee recommended that this resolution be submitted to the Council for further study.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution #26—Taxation of Hospitals

The Committee considered Resolution #26, which was submitted by Jackson County Medical Society. The Committee recommended approval of this resolution as written.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution #32—Re: H.R. 4960

(Medicredit Bill)

The Committee considered Resolution #32, which was submitted by Doctor Ritter, St. Louis Medical Society. The Committee recommended approval of this resolution as written.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution #30—Tax Advantage for Self-Employed

The Committee considered Resolution #30 concerning a bill to increase the Keough Plan for the self-employed, which was submitted by St. Louis Medical Society. The Committee recommended approval of this resolution as written.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution #34—Mandatory Labeling of Prescriptions

The Committee considered Resolution #34, which was submitted by Doctor Kuenzi, Clay County Medical Society.

The *Resolve* portion of that resolution is changed to read as follows:

Resolved, That the House of Delegates for the Missouri State Medical Association go on record as favoring legislation which would make it mandatory for the pharmacists and dispensing physicians in the state of Missouri to label each prescription which they fill with the exact name and dosage of the medication which has been prescribed, unless otherwise directed by the prescribing physician, and that the Missouri State Medical Association encourage other prescribing groups such as dentists and osteopaths to adopt this concept and work toward appropriate legislation, be it further

Resolved, That representatives of the Missouri State Medical Association offer their services to the General Assembly of the state of Missouri in drafting such legislation.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Mr. Speaker, I move the adoption of the report as a whole, as amended.

(The motion was seconded and approved.)

The Speaker invited Dr. C. Y. Thomas, Jr., Chairman of the Reference Committee on Constitution and Bylaws, to present his report.

CONSTITUTION AND BYLAWS

Mr. Speaker, the Reference Committee on Constitution and Bylaws met on Thursday afternoon, April 6, 1972, following the session of the House of Delegates. All Committee members were present.

Resolution #1—Delegates for Specialties

The first order of business was discussion of Resolution #1 pertaining to delegates from members of the Interspecialty Commission of the MSMA. The Committee agrees in principle with the resolution as submitted in its intention to involve all specialties and members of the profession in our deliberations, but does not recommend approval. The Committee felt that adequate specialty representation was either now present or could be arranged within the present structure.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution #27—Definition of Council Chairmanship

The next order of business was the consideration of Resolution #27 pertaining to the chairmanship of the Council. There was considerable discussion concerning the intent of this resolution. During the discussion, it was brought out that limiting the number of terms to any one councilor could have the same effect as Resolution #27. The effect is to encourage participation by the younger membership in the affairs of the Council. Since this will require significant revision of the Constitution and Bylaws, the Committee voted to refer the resolution to the Standing Committees on Constitution and Bylaws and Long Range Planning.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution #8—Representation for Medical Students

The next order of business was consideration of Resolution #8 concerning representation for medical students. A student from the University of Missouri School of Medicine attended our session. He reported that in visiting the University of Oregon School of Medicine, he found the students have a greater degree of association and identification with the Society than they do with the medical school. They actively attend both state and local meetings. After lengthy discussion, the Committee recommends that the following changes be made:

Resolved, That the MSMA shall make available in its House of Delegates seats for duly elected representatives of each school of medicine in the state of Missouri, and be it further

Resolved, That the Deans of the medical schools be requested to cause to be elected from the body of each of their institutions, two student Delegates to the MSMA, each student to be from a different class; and be it finally

Resolved, That the Student Delegates shall be seated in the House of Delegates as full-voting members of the House with all of the rights and privileges pertaining thereto.

Mr. Speaker, I recommend the adoption of this portion of the report.

(The motion was seconded. Dr. Paul Max, St. Louis, moved to amend Resolution #8 by deleting the words, the right to vote. *The motion was seconded. After discussion, this motion to amend was defeated. Dr. Stanley S. Peterson, Springfield, then introduced a motion to amend Resolution #8 by stating that* the eight Student Delegates be seated in the House of Delegates with the privilege of voting on all matters, but not in the election of officers of the MSMA. *The motion was seconded and defeated. The motion to adopt this portion of the report as recommended by the Reference Committee was then approved.)*

Report of the Committee on Constitution and Bylaws

The next consideration was the report of the Standing Committee on Constitution and Bylaws. The Reference Committee adopted Items #1, #2, #3, #4 and #6, as stated.

Lengthy discussion was held on Item #5, which would amend Article IX of the Constitution of the Missouri State Medical Association. The Reference Committee recommends that Item #5 of the Standing Committee's recommendation to amend Article IX of the MSMA Constitution be changed to read as follows:

Petitions signed by 10% of the *active* members of the Association, including petitioners representing at least one half of the component medical societies, will initiate a referendum regarding changes in the Constitution or Bylaws or questions before the House of Delegates or Council. A majority vote of all active members of the Association shall determine the question.

Mr. Speaker, I recommend the adoption of this portion of the report.

(The motion was seconded. Dr. Walter J. Stelmach, Kansas City then spoke to the question and moved that the Reference Committee's proposed amendment to Item #5 be replaced by the following amendment:

Petitions signed by 10% of the active members of each and every component Society will initiate a referendum regarding changes in the Constitution or Bylaws or questions before the House of Delegates or Council. A majority vote of all active members of the Association shall determine the question.

Doctor Stelmach's motion was seconded.

After the invitation for discussion, Dr. R. Bruce McCloskey, St. Louis, moved that the last line of the Reference Committee's proposed amendment be changed by adding the word responding *after association, to read as follows:*

A majority vote of all active members of the Association *responding* shall determine the question.

The motion was seconded. A call for division of the House was made and the motion carried by a vote of 68 to 61.

The Speaker then called for a vote on Doctor Stelmach's motion to amend Item #5 of the Reference Committee's proposed amendment.The motion was defeated.

A motion to accept Item #5 as proposed by the Reference Committee and as amended was seconded and approved.

This amendment to Article IX of the Constitution of the Missouri State Medical Association reads as follows and will be tabled for one year to be acted upon at the 115th Annual Session of the MSMA.

Petitions signed by 10% of the active members of the Association, including petitioners representing at least one half of the component medical societies, will initiate a referendum regarding changes in the Constitution or Bylaws or questions before the House of Delegates or Council. A majority vote of all active members of the Association responding shall determine the question.)

Report of the Commission on Medical Legal Affairs

The next order of business was consideration of the Report of the Commission on Medical Legal Affairs concerning the establishment of Medical Examiner Programs. This listed the Medical Examiner Programs of St. Louis County and Jackson County, and the Committee reaffirms that the Medical Examiner should be a licensed physician trained in forensic medical examinations.

Also, Mr. Speaker, I parenthetically would like to say that members of the Committee, namely, Doctor Foreman, Doctor Judd, Doctor Brown and Doctor Chastain, were well informed, indeed, and acted responsibly. I appreciate their work.

I now move adoption of this portion of the report and the entire report.

(The motion was seconded and passed.)

At this time, the Speaker dispensed with the rules and invited Dr. Kenneth C. Hollweg, Chairman of the MMPAC Committee, to make a brief talk.

The Speaker then invited Dr. John Dixon, Chairman, to present the report of the Reference Committee on Resolutions.

RESOLUTIONS

The meeting of the Reference Committee on Resolutions was held at 4:30 PM on April 6, 1972, in Room 362 of the Muehlebach Towers with all members present.

The report of the Ad Hoc Blue Shield Committee in reference to the method of election of participating members to the St. Louis Blue Shield Voting Board was amended by Dr. Charles W. Chastain, Chairman, and the report was recommended for approval.

The amended report, which is not in the Delegates Handbook, is as follows.

Amended Report of Ad Hoc Blue Shield Committee

In reference to the method of election of participating members of the St. Louis Blue Shield Voting Board, the Committee recommends:

a. That the nomination of participating members to the Voting Board of Missouri Medical Service be made by County Medical Societies, County Osteopathic Societies, and a Nominating Committee of the Voting Board of the Missouri Medical Service and,

b. That participating members be elected by mail ballot of the participating medical or osteopathic members if the number of nominations exceeds the vacancies in a designated geographic area as established in the bylaws of Missouri Medical Service, and

c. That subscribing members of the Voting Board be nominated by participating subscribers, and the Nominating Committee of the Voting Board, and

d. That subscribing members be elected by the Voting Board for staggered terms not to exceed three in succession and

e. That the Board of Trustees be elected by the Voting Board as is presently done.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

The Committee next reviewed all resolutions presented to the Committee.

Resolution #3—Insurance Coverage for Outpatient Care

Resolution #3, which was introduced by Cape Girardeau County Medical Society, was approved as amended by changing the fourth Whereas and the *Resolve* to read as follows:

Whereas, Many conditions can be adequately diagnosed and treated on an outpatient basis as determined by the patient's physician with the payment to be made for the same services rendered, be it

Resolved, That the Missouri State Medical Association encourages insurance companies to restructure their policies so that necessary ambulatory diagnosis and treatment will be covered on a fee basis comparable to that of inpatient care.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution #6—Medicaid Fee Reductions

Resolution #6, which was introduced by Lafayette-Ray County Medical Society, was approved as amended by changing the second Whereas, adding a fifth Whereas and changing the *Resolve* to read as follows:

Whereas, The majority of participating physicians of this state are still willing to cooperate fully to the best of their ability and

Whereas, The shortage of physicians in depressed areas is acute at present and is further compounded by reduced reasonable and customary fee schedule, now, therefore, be it

Resolved, That the majority of physicians of this state strongly recommend that the State Division of Welfare return to full payment of reasonable and customary fees. If such action is not taken, legal redress should be considered as recommended by the MSMA counsel.

As amended, Resolution #6 will read as follows:

Whereas, The majority of physicians of the state of Missouri have cooperated fully with the State Division of Welfare in implementing the Welfare program known as Medicaid since it was instituted in 1966, and

Whereas, The majority of participating physicians of this state are still willing to cooperate fully to the best of their ability, and

Whereas, The State Division of Welfare has seen fit to reduce payment to 90% of the reasonable and customary fee since July 1970, and

Whereas, The physicians of Missouri believe it to be unfair and unreasonable for them to be the only ones to be forced to subsidize the program, and

Whereas, The shortage of physicians in depressed areas is acute at present and is further compounded by reduced reasonable and customary fee schedule, now, therefore, be it

Resolved, That the majority of physicians of this state strongly recommend that the State Division of Welfare return to full payment of reasonable and customary fees. If such action is not taken, legal redress should be considered as recommended by the MSMA counsel.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and passed.)

Resolution #9—HCF Membership Encouraged

Resolution #9, which was introduced by Jackson County Medical Society, was recommended for approval.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded. There was discussion. Dr. Barney W. Finkel moved that this portion of the report be returned to the Reference Committee for further study. However, following remarks of the Speaker, he withdrew his motion. The motion to adopt this portion of the report was then approved.)

Resolution #11—Medicaid Fee Assignment

Resolution #11, which was introduced by St. Louis Medical Society, was approved as presented.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution #12—Insurance Coverage for Ambulatory Care Center Patients

Resolution #12, which was introduced by St. Louis Medical Society, was not recommended for approval. The Committee was of the opinion that the content of this resolution was covered in the previously-approved Resolution #3 entitled "Insurance Coverage for Outpatient Care."

Mr. Speaker, I move the adoption of this portion of the report.

(This motion was seconded and carried.)

Resolution #15—Current Procedural Terminology

Resolution #15, which was introduced by Clay County Medical Society, was recommended for approval.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution #16—Support for Fee for Service Medical Care

Resolution #16, which was introduced by Clay County Medical Society, was approved as amended in the first *Resolve* by deleting the words "or some variation thereof" to read as follows:

Resolved, That the House of Delegates of the Missouri State Medical Association go on record as supporting the fee for service method of health care delivery as being the system of choice in providing the maximum quantity of quality health care, and be it further

Resolved, That our support of this type of health care delivery system and the reasons therefore, be made crystal clear to the Executive Branch of the Federal Government, to the Federal Legislature, to the Chairman of the House Ways and Means Committee, to the Secretary of Health, Education and Welfare and to the citizenry of Missouri.

There was much favorable comment presented to the Committee concerning the content of the resolution.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution #17—Medicare Payments

Resolution #17, which was introduced by Clay County Medical Society, was amended as follows:

Whereas, The result has been to force hospitals and doctors to charge non-Medicare patients more than their fair share of the total and necessary costs of operation;

In the sixth Whereas, delete the words "administrative or" and amend to read:

Whereas, There is no judicial appeal procedure for doctors and hospitals under the Medicare program; and

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution #18—Refusal to Furnish Itemized Bill

Resolution #18, which was introduced by Clay County Medical Society, was not recommended for approval, since it was pointed out that itemization is a matter of law and not of choice for those who choose a direct billing approach for Medicare payment.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution #21—Reasonable and Customary Fees and the Legality of Such Contracts

Resolution #21 was introduced from the floor by Lafayette-Ray County Medical Society. It was the opinion of the Committee that this resolution was too comprehensive in that it included Blue Shield, Medicare and Medicaid which are contractual agreements at present. The Committee appreciates efforts to obtain reasonable and customary fees. This resolution was not recommended for approval.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution #25—Charges Imposed by Immediate Relatives

Resolution #25 was introduced from the floor by Greene County Medical Society. This resolution is concerned with the exclusion provision barring Medicare payment to physicians for personal services rendered to immediate relatives. It was the Committee's opinion that this is an unfair regulation. The Committee recommended that the resolution be approved.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded. By unanimous consent of the House, the rules were suspended so that Councilor James Cope, who was not a Delegate, could speak to the question. Doctor Cope informed the House that the Council had previously taken action on the subject of Resolution #25 and had received replies from our Congressmen, Senators, the Chairman and the Director of the Department of Health, Education and Welfare. Following Doctor Cope's comments, the motion was approved.)

Resolution #28—Comprehensive Health Planning

Resolution #28, which was introduced by Jackson County Medical Society, was recommended for approval.

Mr. Speaker, I move the adoption of this portion of this portion of the report.

(The motion was seconded and carried.)

Report of Ad Hoc Committee to Study Negotiation of Professional Fees

A report of the Ad Hoc Committee to Study Negotiation of Professional Fees was presented by Dr. Stanley S. Peterson, Chairman. This was an interim report and concerns the establishment of a Section on Socio-Economics in the Missouri State Medical Association. The plan was a basis for discussion at the Committee meeting. The report of Doctor Peterson was approved.

Mr. Speaker, I move adoption of this portion of the report.

(The motion was seconded and carried.)

As a final order of business, the Committee reviewed those portions of the Council Minutes referred to the Resolutions Committee in the booklet of official reports to the House of Delegates, June 5, 1971 through January, 1972. The verbal and written report of the April 5, 1972 meeting of the Council was accepted for information. The Minutes of the Council meeting were approved as published.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Mr. Speaker, I move adoption of the report as a whole.

(The motion was seconded and approved.)

The Speaker invited Dr. Robert H. Felix, St. Louis, Chairman, to present the report of the Reference Committee on Medical Education and Public Welfare.

MEDICAL EDUCATION AND PUBLIC WELFARE

The Committee on Medical Education and Public Welfare met at the Muehlebach Hotel in Kansas City on Thursday, April 6, 1972, at 4 PM. All members were present. It was recommended that the published Minutes of the Council Meetings of June 5-6, 1971; September 18-19, 1971; December 11-12, 1971; and January 29-30, 1972; and the supplemental report of the Council be approved.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution #14—Admission Policies, Missouri Medical Schools

Resolution #14 was introduced by Clay County Medical Society. After extensive discussion, this resolution was withdrawn from further consideration of the Committee by the Delegates of Clay County Medical Society. I assume there is no consideration of this resolution.

Resolution #23—Continued Professional Education

Resolution # 23, which was introduced by St. Louis Medical Society, is recommended for adoption, with praise for the forward thinking and planning of the Committee on Continuing Education.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution #29—Instruction in Medical Ethics, Jurisprudence and Organized Medicine

Resolution #29, which was submitted by Cole County Medical Society, is recommended for adoption in the following modified form:

WHEREAS, A basic knowledge of medical ethics, jurisprudence and the functioning of county, state and national medical societies is essential for every physician, and

WHEREAS, A varying degree of emphasis is placed on these topics in medical schools, and, also, in intern and resident training, and

WHEREAS, It is a matter of concern to the members of Missouri State Medical Association that these topics be given the necessary emphasis, now, therefore, be it

Resolved, **That MSMA supply to the various schools of medicine and teaching hospitals in the state of Missouri copies of the AMA Code of Ethics for distribution to their students, interns and residents**, and be it finally

Resolved, That MSMA be prepared, when requested, to supply faculty from **its member physicians** in private practice to assist in teaching these topics in medical schools and for those conducting intern and resident training.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution #33—Pediatrician Coordination Council of Missouri

Resolution #33, which was submitted by St. Louis County Medical Society, is recommended for adoption.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and approved.)

Resolution #35—Restriction of Amphetamine Usage

Resolution #35, which was submitted by St. Louis Medical Society, is recommended for adoption.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Mr. Speaker I move the adoption of the report as a whole.

(The motion was seconded and approved.)

(At this point, a Delegate noted that due to an oversight, the Health Care Foundation of Missouri report, which was presented by Dr. Hector W. Benoit in the first session of the House, had not been considered by the Reference Committee on Resolutions, to which it had been referred. He moved that the report be accepted by the House of Delegates as a whole. His motion was seconded and approved.)

The Speaker invited Dr. Paul H. Rother, Chairman, to present the report of the Reference Committee on Reports of Officers.

REPORTS OF OFFICERS

The Reference Committee on Reports of Officers met in Room 363 of the Hotel Muehlebach at 4 PM on Thursday, April 6, 1972, with all members present.

Reports of the President, Gerald L. Miller, M.D.; of the President-Elect, Walter T. Gunn, M.D.; of the President of the Woman's Auxiliary to the Missouri State Medical Association, Mrs. Frank J. Valach; and of the President of the American Association of Medical Assistants, Inc., Mrs. Sue Turner (as presented by Mrs. Margaret Hubbard of Carthage) were accepted and recommended for approval.

The Committee recommends approval of the reports of the Secretary, Treasurer, Executive Secretary, Committee on Planning and Committee on Publications.

Mr. Speaker, I move the acceptance of this portion of the report.

(The motion was seconded and carried.)

The report of the Treasurer was examined carefully to ascertain the financial status of MSMA as related to the feasibility of purchasing property in Jefferson City and office space for the Missouri State Medical Association.

Mr. Speaker, I move the acceptance of this portion of the report.

(The motion was seconded and approved.)

Those portions of the Council's minutes referred to this Committee were reviewed and covered the Council meetings of April 18, 1971; June 5-6, 1971; September 18-19, 1971; December 11-12, 1971; and January 28-29, 1972.

Mr. Speaker, I move the acceptance of this portion of the report.

(The motion was seconded and approved.)

The portion of the supplemental report of the Council, as read on the floor of the House of Delegates by Doctor Stricker, which was referred to this Committee, dealt with the acceptance by Mr. Bob Carroll of the new position with the Missouri Savings and Loan League, the agreement in principle with the Missouri Inter-Agency Council on Smoking and Health and the refusal of the donation of $500 because it was not included in the budget for the coming fiscal year. The Committee recommends approval of this portion of the supplementary report of the Council.

The Committee accepted the supplemental report of the Council calling attention to the passing of Mr. Edgar J. Mothershead, Executive Secretary of the St. Louis County Medical Society, and the Committee recommends that the Speaker of the House, in the name of the House of Delegates, be instructed to write a letter to Mrs. Mothershead expressing the regret of the entire House of Delegates at his passing and expressing our appreciation for the work that he has done.

The report that Mrs. Terry Watson has been appointed Executive Secretary of the St. Louis County Medical Society also was approved, and St. Louis County is to be commended for its fine choice of a new Executive Secretary and its support of the Women's Lib Movement.

Mr. Speaker, I move the acceptance of this portion of the report.

(The motion was seconded and approved.)

The next portion of the supplemental report of the Council dealt with the additional financial and staff assistance for the Public Affairs Program of the Woman's Auxiliary. This portion of the Report also was approved.

Considerable discussion was given to the final part of the supplemental portion of the Council dealing with a suitable and permanent home for the Missouri State Medical Association in Jefferson City. This purchase can now be made with available funds without assessment to the members and the MSMA can expect to effect a considerable savings to the Association over a number of years. The Committee unanimously approves this part of the Council's report and strongly urges the House of Delegates to do likewise.

Mr. Speaker, I move the acceptance of this portion of the report.

(The motion was seconded and approved.)

Mr. Speaker, I move the adoption of the report as a whole.

(The motion was seconded and approved.)

The Speaker invited new business.

Introduction of New Business

Dr. Robert Brookes of St. Louis introduced the following resolution:

Resolution #36—Outpatient Medicare Coverage of Patients With Emotional Problems

Whereas, Medicare provides coverage of 80% of outpatient nonpsychiatric care without an annual limitation, and

Whereas, Medicare provides for 80% of 62½% of outpatient psychiatric care with an annual limitation of $500, and

Whereas, This represents discrimination against the patient with emotional problems, therefore be it

Resolved, That the Missouri State Medical Association urge the Social Security Administration to discontinue the above policies, which discriminate against a class of ill people.

(Referred to Reference Committee on Resolutions.)

Dr. Chris K. Fotopoulos, North Kansas City, introduced the following resolution:

Resolution #37—Emergency Medical Services

Whereas, Emergencies are often attended by inadequately trained personnel with inadequate equipment, and

Whereas, Emergencies are often taken to one institution where the needed physician or facilities would be better available at a different institution, and

Whereas, The Greater Kansas City metropolitan area has developed a plan for emergency services, including among others the following features: Continuing training for emergency personnel; adequately equipped emergency vehicles; strategic location of emergency vehicles; integrated communication system with cooperation of fire and police departments and hospitals and physicians; therefore, be it

Resolved, That the Missouri State Medical Association House of Delegates go on record as approving and commending this plan, and be it further

Resolved, That MSMA cooperate in whatever manner is deemed advisable by our Officers and Council.

(Referred to the Reference Committee on Miscellaneous Affairs.)

Dr. Barney W. Finkel, St. Louis, introduced the following resolution:

Resolution #38—Declaration That the Foundation Was Established and Is Founded on Fear

Whereas, The term that if we do not do it, "they" (meaning the government) will do it is so often heard by proponents and the supporters of the HCFM, Inc., and

Whereas, This is the exact threat that Senator Bennett and the vote-seeking politicians and the social planners are saying, to "force" doctors to do voluntarily to themselves which they would never do voluntarily at any other time in history, and

Whereas, In this free society, we should not act from haste and fear (as we are doing here) because of the above pressures and threats, so, therefore, be it

Resolved, That we subject those politician and social planners with the responsibility of placing upon us these oppressive laws. With this being done, the responsibility will be upon them for having done this. Oppression will soon be proven to be unconstitutional and a form of slavery—which is contrary to our Bill of Rights and freedoms. This fact can be easily proven in our courts and they, in turn, would have these laws repealed, thereby forcing the onus of responsibility upon the shoulder of the politician and not on our voluntary submission and cooperation of a fearful medical profession, and, finally, be it

Resolved, That we rekindle our trust and faith in our Republic and its Constitution, for we cannot be slaves as the HCFM, Inc. proponents threaten, and the ambitious social planners and politicians would have us believe.

(Referred to the Reference Committee on Resolutions.)

Dr. Charles A. Jost, St. Louis, introduced the following resolution:

Resolution #39—To Discourage Membership in the Health Care Foundation of Missouri, Inc. Until the Entire Membership of the Missouri State Medical Association Has More Information About It

Whereas, After informing the Greater Metropolitan St. Louis area doctor and a few out-of-town doctors about the HCFM, Inc., e.g., by dissemination of the following:

1. The Constitution and Bylaws of the HCFM, Inc.
2. Opinions by qualified medically-oriented attorneys who made studies of the Foundation.
3. Consultation with an AMA attorney in reference to the Foundation, and

Whereas, In this area of the state, the sentiment has been overwhelmingly against the HCFM, Inc.

This was determined at staff meetings of the Alexian Brothers Hospital, Lutheran Hospital, St. Anthony's Hospital, the St. Louis County Medical Society meeting on "peer review" and a poll by the St. Louis Academy of Family Practice, and

Whereas, It seems that some of those who have applied for participating membership have not had a clear understanding of the obligations they have assumed, therefore, be it

Resolved, That a copy of the Constitution and Bylaws of the Foundation be sent to all potential applicants so they may understand what they are joining, and be it

Resolved, That each potential member be notified that in the HCFM, Inc., Constitution and Bylaws, on page 2, Section 3, voting rights are only "enjoyed by the administrative members and the Board of Directors," and on page 3, Chapter IV, Section 2, "The Board of Directors shall have full power to control, manage the property and conduct the affairs and business of this corporation and in furtherance of the foregoing powers, but not in limitation thereof, it shall have power to make contracts . . . etc." But these contracts will involve all members, administrative and participating, but made by only administrative members and will be binding on participating and administrative members. Contracting with whom or for what is not specified. Chapter IV, Section 1 states "The Chairman of the Foundation shall be elected by the administrative members" (which makes it self-perpetuating, self-empowering, self-serving and monolithic in nature). Chapter VII, Section 1-b, Nominating Committee is appointed by the Board of Directors, three in number, with no less than two administrative members, and these would be selected from the Board of Directors and administrative members, and Chapter IX, page 10, Section 4, "The Board of Directors may authorize any officer or officers, employees or employees' agent or agents to enter into any contract or to execute any instrument in the name of and on behalf of the corporation and such authority may be general or confined to specific instances."

(Referred to Reference Committee on Resolutions.)

Dr. Melvin Schwartz, St. Louis, introduced a resolution by Dr. M. A. Diehr of the St. Louis County Medical Society.

Resolution #40—Failure Rate of State Board Examinations

Whereas, Some individuals feel that there is an unusually high failure percentage among physicians taking the Missouri State Board examination; and

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President-Elect E. A. Stricker *(left)* and President Walter T. Gunn congratulate each other upon their election as leaders of the MSMA for 1972-1973.

Whereas, In some instances, those physicians who fail the Missouri State Board examination are able to pass State Board Examinations in other states and are thereby lost to the state of Missouri; therefore be it

Resolved, That the House of Delegates recommend that the Council update its study of the methods and manner of examination of new physicians by the Board of Healing Arts.

(Referred to Reference Committee on Medical Education and Public Welfare.)

Dr. Miles C. Whitener, St. Louis, introduced the following resolution:

Resolution #41—Health Care Foundation of Missouri

Whereas, One of the responsibilities of the HCFM is the adjudication of disagreements on medical fees and problems, and

Whereas, The doctor must abide by the decision of the Foundation or risk punitive action, therefore be it

Resolved, That all parties subject to the review of the HCFM be required to agree beforehand to abide by the decisions of the Foundation, and be it further

Resolved, That this be done in a legal and statutory manner.

(Referred to Reference Committee on Resolutions.)

There being no further business, the Speaker adjourned the Second Session of the House of Delegates with the announcement that the Annual Meeting of the Missouri State Medical Foundation would be held immediately following adjournment.

THIRD SESSION
Sunday, April 9, 1972

The Third Session of the MSMA 114th House of Delegates was called to order by the Speaker, Dr. E. D. Imes, at 7:30 am in the Grand Ballroom. Dr. William W. Gist, Chairman of the Credentials Committee, reported the presence of a quorum. With unanimous consent, the Speaker dispensed with a roll call and the reading of the minutes of the previous two sessions.

Dr. F. Eugene Pennington, Chairman of the Nominating Committee, was invited to present the report of his committee.

NOMINATING COMMITTEE

The Nominating Committee wishes to make the following report of nominations for the ensuing year. Members present were Drs. Donald Kuenzi, Phillip Foreman, Eugene Pennington, Jack Eidelman, Hugh E. Stephenson, Richard King, with C. M. Lederer as a substitute, Walter German, Claude Cooper and Kirby Turner.

The Committee submits the following slate of nominees for approval by the Association:

Vice-President—Dr. Paul Max, St. Louis
Vice-President—Dr. C. A. McBurney, Slater
Vice-President—Dr. Truman B. Schertz, North Kansas City
AMA Delegate—Dr. Stanley S. Peterson, Springfield
Alternate AMA Delegate—Dr. James E. Sisk, Clayton
AMA Delegate—Dr. J. Loren Washburn, Versailles
Alternate AMA Delegate—Dr. Rae Froelich, Lebanon
Speaker of the House—Dr. Elvin D. Imes, Maryville
Vice-Speaker of the House—Dr. Robert A. Slickman, Kansas City

Mr. Speaker, I move adoption of this portion of the report.

The Speaker invited additional nominations from the floor. Hearing none, he entertained a motion that the nominations cease and that a unanimous ballot be cast for the slate as presented by the Nominating Committee.

(The motion was seconded and approved.)

At this time, the Speaker invited nominations for the office of President-Elect. Dr. Billy J. Bass of Salem nominated Dr. E. A. Stricker of St. James. The nomination was seconded by Dr. Byron E. Watts of Jefferson City (Cole County Medical Society); Dr. David N. Kerr of St. Louis, Dr. Stanley S. Peterson of Springfield (Eighth District); Dr. Hector W. Benoit, Jr. of Kansas City (Seventh District); and Dr. Frederick D. Peterson of St. Louis (Fourth District): A Delegate moved that nominations cease and that Doctor Stricker be elected by acclamation. The motion was seconded by Dr. Joseph Edwards and was approved.

The new President-Elect was escorted to the Speaker's stand where he made a brief acceptance statement.

Dr. John I. Matthews, Secretary, announced that the following Councilors had been elected for two-year terms.

Dr. John N. Martin, First District
Dr. Max Franklin, Third District
Dr. James C. Cope, Fifth District
Dr. A. Allen Chandler, Seventh District
Dr. Claude W. Cooper, Ninth District

The Speaker then called for additional reports of reference committees.

Dr. John Dixon, Chairman, was invited to present the additional report of the Reference Committee on Resolutions.

RESOLUTIONS

The meeting of the Reference Committee on Resolutions was held at 9:30 am on Saturday, April 8, 1972 in the Tea Room of the Muehlebach Towers with all members present.

The Committee reviewed all resolutions which were presented.

Resolution #36—Outpatient Medicare Coverage of Patients With Emotional Problems

Resolution #36, which was introduced by Dr. Robert Brookes for the Joint Council of the Missouri Psychiatric Association and the Mental Health Committee of the St. Louis Medical Society, was approved as amended by changing the *Resolve* to read as follows:

Resolved, That the Missouri State Medical Association urge the Social Security Administration to discontinue the above policies which discriminate against a class of ill people.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution #38—Declaration That the Foundation Was Established and Is Founded on Fear

Resolution #38, which was introduced by Dr. Barney Finkel, Fourth Councilor District, St. Louis County, was withdrawn in favor of Resolution #39.

(At this point, the Speaker asked for a motion from the floor which would give Doctor Finkel permission from the House of Delegates to withdraw Resolution #38. It was so moved, seconded and approved.)

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution #39—To Discourage Membership in the Health Care Foundation of Missouri, Inc. Until the Entire Membership of the Missouri State Medical Association Has More Information About It

Resolution #39, which was introduced by Dr. Charles A. Jost of St. Louis, Third Councilor District, was approved as amended by changing first the title to read as follows:

Resolution #39—To Educate and Inform the Entire Membership of the Missouri State Medical Association

Next, after much discussion and comment, the Committee approved the content of Resolution #39 as amended to read as follows:

Whereas, The membership of the Missouri State Medical Association does not have current copies of the Constitution and Bylaws of the Health Care Foundation of Missouri, Inc., therefore, be it

Resolved, That a current copy of the Constitution and Bylaws of the Health Care Foundation of Missouri, Inc., be sent to all members of the Missouri State Medical Association so that they may understand all aspects of the Foundation, and be it further

Resolved, That this mailing be undertaken at the direction of the Council of the Missouri State Medical Association.

In explanation, Mr. Speaker, at the Committee hearing, Doctor Jost accepted the change in the title, which as originally presented was "To Discourage Membership in the Health Care Foundation of Missouri, Inc." Inasmuch as Resolution #9, which was accepted by the House in the Second Session encourages membership in the Foundation, Doctor Jost was favorable to the change in the title of his resolution.

Mr. Speaker, I ask that Doctor Jost accept this change from the floor.

(Doctor Jost spoke briefly, accepting the above-named changes with comments of appreciation to Doctor Dixon and the Reference Committee for their fairness in regard to Resolution #39.)

I might add that the second *Resolved* was deleted since we felt that the mailing of the current copy of the Constitution and Bylaws will give the membership opportunity to digest the contents thereof.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Resolution #41—Health Care Foundation of Missouri

Resolution #41, which was introduced by St. Louis County Medical Society, was recommended for approval as amended by changing the Whereas and *Resolve* to read as follows:

Whereas, One of the responsibilities of the Health Care Foundation of Missouri, Inc., is the adjudication of disagreements on medical fees and problems and

Whereas, The doctor must abide by the decision of the Foundation, therefore, be it

Resolved, That the Health Care Foundation of Missouri, Inc. will not review any issue unless the parties requesting the review agree to be bound by the decision of the Health Care Foundation of Missouri, Inc., with the privilege of appeal.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion was seconded and carried.)

Mr. Speaker, I move the adoption of the report as a whole.

(The motion was seconded and approved.)

The Speaker invited Dr. Melvin C. Kasten, Chairman, to present the additional report of the Reference Committee on Miscellaneous Affairs.

MISCELLANEOUS AFFAIRS

The Reference Committee on Miscellaneous Affairs met at the Muehlebach Hotel in Kansas City on Friday, April 7 at 6 pm. All members were present.

Resolution #37—Emergency Medical Services

Resolution #37, which was introduced by Clay County Medical Society, was approved.

Mr. Speaker, I move the adoption of this report.

(The motion was seconded and approved.)

The Speaker invited Dr. Robert H. Felix, Chairman, to present the additional report of the Reference Committee on Medical Education and Public Welfare.

MEDICAL EDUCATION AND PUBLIC WELFARE

The Reference Committee on Medical Education and Public Welfare held its second meeting on April 7, 1972 immediately following the adjournment of the Second Session of the House of Delegates.

Resolution #40—Failure Rate of State Board Examinations

Resolution #40, which was introduced by St. Louis County Medical Society, was referred to this Committee and was considered at length. After hearing expressions of opinion from several sources, the Committee submits the resolution which was modified as follows:

Whereas, Criticism has been heard that there is at times a high failure rate among physicians taking the Missouri State Board examinations, and

Whereas, It is claimed that in some instances these physicians have been able to pass State Board examinations in other states, therefore, be it

Resolved, That the House of Delegates authorize a study of the methods and manner of examinations by State Boards of Healing Arts or Medical Examiners.

Mr. Speaker, I move the adoption of this report.

(The motion was seconded and approved.)

This concluded reports of the Reference Committees.

The Speaker then invited the Officers and Councilors to come to the front of the room where the Association Secretary, Dr. John I. Matthews, administered the oath of office.

There being no further business, the Speaker invited President Walter T. Gunn to announce his commission and committee appointments for the 1972-1973 year. Members whose terms had not expired were not mentioned and it is assumed they will continue to serve.

The meeting has adjourned and President Walter T. Gunn *(right)* visits with the "new team" of officers who also were elected at the 114th Annual Session. *(Left to right)* Treasurer Charles R. Gulick of St. Louis; Secretary John I. Matthews of Jefferson City; President-Elect E. A. Stricker of St. James and Council Chairman James C. Cope of Columbia.

Committee Appointments

Committee on Constitution and Bylaws—Joseph A. Conrad, Chillicothe and Edwin M. Powell, Springfield (terms to expire in 1975); Kenneth C. Hollweg, Kansas City, Chairman for 1972-1973.

Committee on Legislative Affairs—John I. Matthews, Jefferson City, Chairman; Gerald L. Miller, Kansas City; James C. Cope, Columbia; Walter T. Gunn, St. Louis; Robert E. Bregant, Jefferson City (one year terms).

Committee on Planning—W. D. Bradshaw, Clinton and J. Will Fleming, Moberly (terms to expire in 1977); David N. Kerr, St. Louis, Chairman for 1972-1973.

Committee on Voluntary Health Agencies—Max E. Teare, Kansas City and Melvin A. Cassel, St. Louis (terms to expire in 1975); Wendell G. Scott, St. Louis, Chairman for 1972-1973.

Commission Appointments

Commission on Public Affairs—Troy Morgan, Albany; R. A. Ritter, Jr., Cape Girardeau; C. Keith Whittaker, Kansas City; Stanley G. Hall, Hannibal; J. E. Block, Sedalia (terms to expire in 1975); Richard Bowles, Liberty, Chairman for 1972-1973.

Commission on Medical Economics, Third Party Medicine and Governmental Relations—Francis M. Maple, Springfield; Stanley S. Peterson, Springfield; Victor B. Buhler, Kansas City; Mark E. Eagleton, St. Louis; E. E. Wadlow, St. Joseph (terms to expire in 1975): Max A. Heeb, Sikeston (to serve the unexpired term of W. J. Ferguson, Sikeston); Stanley S. Peterson, Springfield, Chairman for 1972-1973.

Commission on Continuing Education and Health Manpower—Lucien W. Ide, St. Joseph; H. Peter Ekern, Mexico; B. J. Bass, Salem; George H. Ladyman, Poplar Bluff; Paul R. Young, Columbia (terms to expire in 1975); George H. Ladyman, Poplar Bluff, Chairman for 1972-1973.

Commission on Medical-Legal Affairs—Lee T. Ford, Jr., St. Louis; Robert V. Tompson, Moberly; Wilbur P. McDonald, St. Joseph; Harold B. Rapp, Cape Girardeau; William R. McPhee, Kansas City (terms to expire in 1975); Daniel L. Yancey, Springfield, Chairman for 1972-1973.

Commission on Interspecialty Medicine (The name of the Representative will be followed by the name of the Alternate.)—*Missouri Dermatological Society, Inc.*, Norman Asel, Columbia and M. D. Marcus, St. Louis County; *Missouri Society of Anesthesiologists*, John Schweiss, St. Louis and Don McIntosh, Kansas City; *Missouri OB-GYN Society*, Trevor Watson, Columbia and J. Leslie Walker, St. Louis; *St. Louis Society of Neurological Sciences*, Herbert E. Rosenbaum, St. Louis and E. Robert Schultz, St. Louis County; *Missouri Academy of Family Physicians*, Walter C. Gray, St. Louis County and Ben Koon, Bolivar; *Missouri Otolaryngologists*, Robert M. Hazen, Kansas City and Oscar Pinsker, Kansas City; *Missouri Ophthalmological Society*, Truman Schertz, North Kansas City and H. Berry Ivy, Springfield; *Missouri Psychiatric Association*, Edwin D. Wolfgram, St. Louis and Donald C. Sanders, Kansas City; *Missouri Society of Internal Medicine*, Hugh R. Waters, St. Louis and William W. Woodward, Kansas City; *Missouri Chapter, American Academy of Pediatrics*, Francis X. Lieb, St. Louis and Donald S. Overend, Springfield; *Missouri Chapter American College of Surgeons,* Joseph C. Peden, St. Louis and Hugh E. Stephenson, Columbia; *Missouri State Surgical Society,* Cyril Costello, St. Louis and Charles Lockhart, Springfield.

At the invitation of the Speaker, President E. A. Stricker addressed the House briefly.

The Speaker requested an invitation for the meeting place of the next Annual Session of the Association. On behalf of the St. Louis and St. Louis County Medical Societies, Dr. F. Eugene Pennington invited the MSMA to hold the 1973 Annual Session in St. Louis. The invitation was accepted.

The Speaker announced that the 115th Annual Session of the Missouri State Medical Association will be held on March 29-April 1, 1973 at the Chase-Park Plaza Hotel in St. Louis.

There being no additional business, the Speaker declared the 114th Annual Session adjourned.

REGISTRATION AT THE 114TH ANNUAL SESSION

First Councilor District—71

Ames, Mary B., St. Joseph
Armstrong, J. H., Shawnee Mission, Kan.
Arst, H. E., Kansas City
Bare, Edward F., Tarkio
Bartulica, Nicholas, St. Joseph
Bauman, Henry C., Maryville
Beck, Paul M., St. Joseph
Bohnsack, R. W., Brookfield
Boone, Daniel C., Kansas City
Bowles, Richard P., Liberty
Broyles, W. A., Bethany
Burk, E. K., Kansas City
Butler, E. F., St. Joseph
Carlin, Albert L., Stanberry
Castillo, Michael E., Kansas City
Christ, Martin H., St. Joseph
Cook, Jerry W., Kansas City
Craig, Owen W. D., St. Joseph
Cross, Albert D., Trenton
Dernoncourt, John E., Smithville
Dixon, John R., Brookfield
Dowell, Donald M., Chillicothe
Fisher, Joseph L., St. Joseph
Fotopoulos, C. K., N. Kansas City
Fowler, Charles, N. Kansas City
Fuson, L. H., St. Joseph
Gearhart, Merriam, Bethany
Gilliland, C. E., Cameron
Grimes, M. E., St. Joseph
Hayes, Paul W., St. Joseph
Hedges, Richard C., Excelsior Springs
Herman, Allen I., St. Joseph
Howell, B. D., Brookfield
Huddleston, H. T., Smithville
Imes, E. D., Maryville
Jackson, W. R., Maryville
Kuenzi, Donald, Kansas City
Kulowski, Jacob, St. Joseph
McArtor, Thomas R., Browning
Mandler, George, Chillicothe
Martin, John, St. Joseph
Matteson, Frank B., Grant City
Moen, B. H., St. Joseph
Morgan, Troy, Albany
Mundy, H. F., St. Joseph
Nixon, Edward E., Gallatin
O'Brien, Liam, St. Joseph
O'Connor, Wm. B., St. Joseph
Perico, C. J., N. Kansas City
Petersen, H. E., St. Joseph
Pifer, L. H., St. Joseph
Raines, Oney C., Kansas City
Redmond, Wm., St. Joseph
Revare, Paul, Kansas City
Riddell, Richard V., St. Joseph
Roberts, Phyllis Grant, St. Joseph
Rosenthal, Irwin I., St. Joseph
Rost, Wm. B., St. Joseph
Ryan, J. H., St. Joseph
Schertz, T. B., N. Kansas City
Senor, S. E., St. Joseph
Sklenar, D. E., St. Joseph
Smith, Robert W., Brookfield
Spalding, W. B., Plattsburg
Sportsman, W. L., Kansas City
Stacy, W. T., St. Joseph
Vandiver, V. D., Chillicothe
Vescovo, Paul C., Jr., Kansas City
Wadlow, Ernest E., St. Joseph
Wallace, H. K., St. Joseph
Whitsell, O. E., St. Joseph

Second Councilor District—14

Bach, Lysle M., Hannibal
Campbell, James E., Macon
Cohrs, Clarence C., Moberly
Collins, Gretchen Dorris, Macon
Davis, Landis Y., Canton
Dreyer, P. V., Huntsville
Eggleston, Donald E., Macon
Fleming, J. Will, Jr., Moberly
Fleming, Tom, Moberly
Foreman, Phillip B., Hannibal
Huber, L. E., Moberly
Plowman, Edward M., Hannibal
Stuart, Dan D., Brunswick
Tarvydas, Francis, Edina

Third Councilor District—87

Allen, Wm. E., Jr., St. Louis
Anderson, John M., St. Louis
Anglo, Luis B., St. Louis
Auer, Edward T., St. Louis
Aylward, H. J., St. Louis
Baue, Arthur E., Clayton
Block, Arnold S., St. Louis
Bowen, S. F., Jr., St. Louis
Brookes, Robert D., St. Louis
Bruns, Kenneth, St. Louis
Bryan, James H., Clayton
Bryan, Wm. T. K., St. Louis
Burde, Ronald M., St. Louis
Byrum, Fritz A., Creve Coeur
Collins, John A., University City
Costello, Cyril, St. Louis
Danis, Richard K., St. Louis
Deakin, Rogers, St. Louis
Dorton, Robert K., Clayton
Drews, Robert C., Clayton
Edwards, Joseph C., St. Louis
Ernst, Edwin C., Jr., St. Louis
Ernst, Richard E., St. Louis
Fallon, Richard H., St. Louis
Felix, Robert H., St. Louis
Finnegan, Joseph, St. Louis
Franklin, Max S., St. Louis
Friedman, Paul L., St. Louis
Geise, August W., St. Louis
Gillespie, Wm. J., Clayton
Gulick, Charles R., St. Louis
Gunn, Walter T., St. Louis
Hanser, Theo. H., St. Louis
Hawkins, George L., Jr., Webster Groves
Hoffman, Ronald, Clayton
Jones, Otey S., St. Louis
Jost, C. A., Florissant
Judd, Donald, St. Louis
Keller, Louis, Clayton
Kerr, David N., University City
Kilo, Charles, Frontenac
Kinsella, Edward D., St. Louis
Komanetsky, W. M., St. Louis
Kowert, Edward H., St. Louis
Krause, G. Lynn, Jr., St. Louis
Kromer, Charles, St. Louis
Lawton, L. M., Creve Coeur
Lerwick, E. R., St. Louis
Loriga, Martin S., St. Louis
Luedde, Philip S., St. Louis
McAlister, William H., St. Louis
McCloskey, R. Bruce, Webster Groves
McLean, Harry A., St. Louis
Macon, Wm. L., Jr., St. Louis
Max, Paul F., St. Louis
Merenda, Sam J., St. Louis
Mueller, Robt., St. Louis
Neilson, Arthur W., St. Louis
O'Neal, Lawrence W., St. Louis
Paine, Robert, St. Louis
Pennington, F. Eugene, St. Louis
Pernoud, Michael F., St. Louis
Porporis, Arthur A., St. Louis
Raybuck, Harry E., St. Louis
Ritter, H. A., St. Louis
Sauer, W. Nicholas, St. Louis
Sciortino, John S., St. Louis
Sherwin, Charles S., St. Louis
Signorelli, A. J., St. Louis
Sletten, Ivan W., St. Louis
Smith, Dermott, St. Louis
Spalding, Donald G., St. Louis
Stergen, N. E., Florissant
Stewart, Mark A., St. Louis
Stokes, James M., St. Louis
Strominger, Donald B., St. Louis
Sullivan, Clement J., St. Louis
Tatkow, R. W., St. Louis
Thiel, J. Allen, St. Louis
Thoma, George E., Clayton
Turner, C. M., St. Louis
Vacca, Joseph B., St. Louis
Velasco, Ernest T., St. Louis
Vermillion, C. O., St. Louis
Wacker, Leo L., St. Louis
Wiegand, Herbert C., St. Louis
Williams, Carol F., St. Louis
Winokur, George, Iowa City, Ia.
Wolfgram, Edwin D., St. Louis

Fourth Councilor District—41

Balster, Vernon, St. Louis
Boles, C. Read, Clayton
Bolinske, Robert E., St. Louis
Catanzaro, Rudolph E., St. Louis
Creech, J. C., Troy
Deitchman, Robert B., Clayton
Deles, Vincente D., Crystal City
Del Pizzo, Ferdinand, Jr., St. Charles
Diehr, M. A., St. Louis
Eidelman, Jack R., Clayton
Eisenmann, B. P., New Haven
Felder, James P., St. Charles
Finkel, B. W., St. Louis
Gray, Walter C., St. Louis
Hagemann, Paul O., St. Louis
Hammes, Roman, St. Charles
Hetlage, Louis P., Troy
Hoelscher, H. F., Warrenton
Jorel, Louis E., Hermann
Klippel, Allen P., Clayton
Kopp, Jules H., St. Louis
Laird, John M., Jr., St. Louis
Lewin, W. Howard, St. Louis
McGinnis, William F., St. Louis
Mayer, Robert A., Ballwin
Miller, Charles, Kirkwood
Montes, A. C., St. Louis
Nakada, James R., Clayton
Peterson, Frederick D., St. Louis
Reilly, Pierce J., St. Louis
Roter, A., St. Charles
Rother, Paul H., St. Charles
Ruhling, Rudy, St. Louis
Schwartz, Melvin M., St. Louis
Shea, James G., Washington
Sisk, James C., Clayton
Soucy, John C., Jr., St. Charles
Valach, Frank J., St. Louis
Whitener, Miles C., St. Louis
Whitener, Paul R., St. Ann
Yoskit, Harry, Festus

Fifth Councilor District—58

Allen, William C., Columbia
Almond, Carl, Columbia
Anderson, T. R., Columbia
Asel, Norman D., Columbia
Bloom, W. A., Fayette
Chamberlain, G. L., Boonville
Clark, Kendall A., Jefferson City
Cooper, C. W., Jefferson City
Cope, J. C., Rocheport
Davis, David, Columbia
Dawson, Richard, Kansas City
Durst, Henry, Fulton
Dwyer, Thomas L., Mexico
Ekern, H. Peter, Mexico
Exon, C. S., Jefferson City
Gallagher, L. M., California
Garner, Royal S., Jefferson City
Guhleman, Henry V., Jr., Jefferson City
Guthrie, Richard A., Columbia
Hall, David G., Columbia
Hardwicke, H. M., Ashland
Hart, W. M., Columbia
Ide, Carl H., Columbia
Jolly, Ben N., Mexico
Kanagawa, Harold K., Jefferson City
Kays, Kenneth M., Columbia
Keown, Kenneth, Columbia
Litwiller, R. W., Columbia
Loyd, Earl L., Holts Summit
Lyle, Ray, Versailles
Marco, Philip J., Columbia
Matthews, John, Jefferson City
Mayer, William D., Columbia
Meinershagen, C. W., Jefferson City
Mitchell, F. L., Columbia
Moranville, B. A., Columbia
Morgan, Philip E., Columbia

Neal, M. Pinson, Columbia
Nieuwenhuizen, Maarten, Columbia
Pickard, Clarence M., Columbia
Pingelton, William B., Columbia
Rall, Kenneth L., Columbia
Rodgers, Elrie P., Columbia
Shull, G. Donald, Jefferson City
Sights, Warren P., Columbia
Siu, Kenneth K. C., Jefferson City
Stephenson, Hugh E., Jr., Columbia
Stewart, William J., Columbia
Stuart, Byron M., Boonville
Sydow, Henry A., Fulton
Tanner, Robert H., Jefferson City
Wakerlin, George E., Columbia
Washburn, J. Loren, Versailles
Watson, Trevor F., Columbia
Watts, Byron E., Jefferson City
Weiss, James M. A., Columbia
Winn, G. W., Boonville
Young, Paul R., Columbia

Sixth Councilor District—28

Aiken, George, Marshall
Barone, Paul L., Nevada
Boydston, Catherine, Odessa
Boydston, Wayne, Odessa
Bradshaw, W. D., Clinton
Brady, H. S., Concordia
Campbell, Albert J., Sedalia
Crayton, Billy G., Waverly
Hansen, A. L., Butler
Huber, K. H., Richmond
Kelling, Jordan, Waverly
Knipschild, B. F., Marshall
Koppenbrink, W. E., Higginsville
LaHue, W. C., Lexington
Lederer, Chas. M., Warrensburg
Lusk, Chas. A., Jr., Butler
McBurney, C. Alex, Slater
McCorkle, E. Lee, Marshall
McFadden, Gene A., Waverly
Maddox, A. R., Sedalia
Magee, Robert L., Eldorado Springs
Maxson, T. Reed, Warrensburg
Pascoe, James J., Nevada
Reid, James A., Marshall
Stauffacher, C. Gordon, Sedalia
Torontow, R. John, Nevada
Worley, Charles A., Sweet Springs
Wray, Rolla B., Nevada

Seventh Councilor District—161

Abella, B. Z., Kansas City
Ackley, Edward James, D.O., Kansas City
Allen, William Bayne, Kansas City
Altomare, Edward P., Kansas City
Barelli, Pat A., Kansas City
Barnett, Gordon P., Shawnee Mission, Kan.
Becker, Richard R., Kansas City
Benoit, Hector W., Jr., Kansas City
Bergmann, Victor H., Kansas City
Biggs, Alfred D., Kansas City
Blim, R. Don, Kansas City
Borsuk, Gregory M., Kansas City
Bowser, John F., Kansas City
Brown, Robert S., Kansas City
Bruner, Robert E., Kansas City
Buckner, Robert C., Kansas City
Buhler, Victor B., Kansas City
Caffrey, Raymond J., Kansas City
Caldwell, John K., Kansas City
Case, William F., Kansas City
Chandler, R. A., Kansas City
Clark, I. H., Kansas City
Coffey, Ralph R., Kansas City
Connell, Evan S., Kansas City
Cox, Wm. L., Independence
Crow, Martin L., Shawnee Mission, Kan.
Curts, Calvin J., Kansas City
Doering, Robert W., Kansas City
Downey, James W., Kansas City
Drowns, Bruce V., Kansas City
Drury, Lawrence, Kansas City
Elliott, R. Glenn, Kansas City
Engelmann, C. E., Kansas City
Ericsson, Samuel E. F., Overland Park, Kan.
Eubank, David F., Raytown
Eubank, William R., Kansas City
Evans, L. L., Kansas City
Everett, James E., D.O., Kansas City
Fayez, Jamil A., Kansas City
Fayne, Fred A., Kansas City
Forsythe, Robert W., Kansas City
Fowler, Fred D., Kansas City
Fowler, James W., Kansas City
Frick, J. P., Kansas City
Fritzlen, Thomas J., Kansas City
Fuhrman, Donald L., Kansas City
Germann, Donald R., Kansas City
Gist, W. W., Kansas City
Goldman, Stanley, Kansas City
Goolsbee, Robert L., Shawnee Mission, Kan.
Greene, W. Wallace, Kansas City
Griffith, John A., Kansas City
Haggan, Margaret E., Lawrence, Kan.
Haight, J. Max, Kansas City
Haith, Edward E., Kansas City
Hall, Thomas B., Kansas City
Hellerstein, Stanley, Kansas City
Hickerson, William H., Independence
Higgins, Ronald A., Kansas City
Hoadley, William D., Shawnee Mission, Kan.
Hoeper, Sam D., Grand View
Holder, Thomas M., Kansas City
Hollinger, L. A., Kansas City
Hollweg, Kenneth C., Kansas City
Hornstra, Robijn K., Kansas City
Hungate, Carroll P., Kansas City
Hyde, L. L., Kansas City
Ingham, W. C., Kansas City
Jacob, Walter P., Kansas City
Jacobs, Morton, Kansas City
James, Otis E., Jr., Kansas City
Johnson, Dallas A., Kansas City
Jung, Christopher H., Columbia
Kahn, Marvin, Kansas City
Kelling, Douglas, Kansas City
Ketcham, W. M., Kansas City
Kettner, E. G., Kansas City
Kiene, Richard H., Kansas City
Landers, Burnell, Independence
Lapi, Angelo, Kansas City
Lapp, Harry C., Kansas City
Link, Vance E., Independence
Linville, Howard E., Kansas City
Long, R. S., Kansas City
Lytton, George J., Kansas City
McCallister, Ben D., Kansas City
McCanse, Andrew, Kansas City
McDonnell, John F., Kansas City
McKee, W. P., Kansas City
McVay, James R., Kansas City
MacInnis, Florence E., Kansas City
Martin, Clyde V., Kansas City
Masucci, Joseph, Kansas City
Melgaard, S. Ross, Kansas City
Miller, Clint L., Lees Summit
Miller, Gerald L., Kansas City
Mixson, Wm. C., Kansas City
Montello, Sam, Kansas City
Moreano, Armando, Kansas City
Morris, J. H., Kansas City
Mosser, Robert S., Overland Park, Kan.
Mullen, Leo M., Kansas City
Neumann, James W., Kansas City
Newman, Robert L., Kansas City
Nickson, Charles E., Jr., Kansas City
Noback, R. K., Kansas City
O'Farrell, Thomas P., Kansas City
O'Hearne, John J., Kansas City
Owens, Richard L., Kansas City
Pentecost, Richard L., Shawnee Mission, Kan.
Perry, Ralph, Kansas City
Peterson, Carl M., Kansas City
Poonawala, H. E., Kansas City
Reister, Dorothy Dailey, Shawnee Mission, Kan.
Reister, Philip D., Shawnee Mission, Kan.
Russell, James, Kansas City
Sabates, Felix N., Kansas City
Samuelson, Edward A., Kansas City
Sanders, Donald C., Kansas City
Sauer, Gordon C., Kansas City
Seely, Clark W., Kansas City
Shelden, Russell D., Kansas City
Shireman, K. L., Kansas City
Siegel, Carl D., Kansas City
Sinclair, Richard H., Kansas City
Slankard, J. Edward, Kansas City
Slickman, R. A., Kansas City
Smith, Othello D., Kansas City
Sneid, Philip, Kansas City
Stacey, Wallace R., Independence
Staley, Harry R., Kansas City
Stelmach, Walter J., Kansas City
Stratemeier, E. H., Kansas City
Szabados, Ernest D., Independence
Tarson, S. S., Overland Park, Kan.
Teare, Max E., Kansas City
Thomas, Chris, Kansas City
Thorne, E. M., Kansas City
Tice, Wayne K., Independence
Totten, Frederick Eugene, Kansas City
Trowbridge, B. C., Kansas City
Tuohy, G. F., Kansas City
Twin, Edward J., Kansas City
Underwood, Dick H., Kansas City
VanBuskirk, Wm., C., Kansas City
Vaughn, James W., Kansas City
Wade, Frederick E., Kansas City
Wakefield, F. H., Leawood, Kan.
Wall, Leonard A., Kansas City
Wheeler, Charles B., Kansas City
White, Charles H., Prairie Village, Kan.
White, James S., Kansas City
Wilber, Robert D., Kansas City
Williams, George P., Kansas City
Williams, Roland Dean, Kansas City
Willoughby, James W., Kansas City
Withers, Orval R., Kansas City
Wurster, W. Joel, Kansas City
Yohe, Ruth, Kansas City
Youll, Donald V., Kansas City
Youngblood, James P., Kansas City

Eighth Councilor District—53

Anderson, Paul B., Neosho
Back, Donald K., Springfield
Bauer, Harold A., Lockwood
Bickel, Vern T., Lamar
Bonebrake, M. D., Springfield
Brown, James T., Springfield
Carroll, Thomas W., Lamar
Cheek, J. William, Springfield
Christianson, C. S., Mt. Vernon
DeTar, B. E., Joplin
Esther, John R., Joplin
Ferguson, John P., Springfield
German, Walter A., Springfield
Glover, Kenneth, Mt. Vernon
Graves, A. J., Mt. Vernon
Griffin, Evelyn, Buffalo
Griffin, O. A., Buffalo
Hall, Durward G., Springfield
H'Doubler, F. T., Jr., Springfield
Huewe, Douglas A., Springfield
Hurst, Wilfred W., Joplin
Ivy, H. B., Springfield
Johnston, Joseph L., Springfield
Knabb, Arthur D., Springfield
Knabb, Kenneth E., Springfield
Lewis, Noel R., Springfield
Lockhart, Charles, Springfield
Lorenc, Ernest, Springfield
Lovett, Robert L., Springfield
Lurie, H. H., Springfield
McAlhany, Howard, Springfield
McCraw, Doyle, Bolivar
McNeel, Lee A., Jr., Greenfield
Macdonnell, Thomas M., Marshfield
Maddox, John D., Joplin
Mill, William B., Springfield
Moseley, F. Thomas, Springfield
Papp, Sandor D., Joplin
Peterson, Stanley S., Springfield
Podrecca, Guido, Springfield
Roberts, Howard, Joplin
Royce, J. J., Sarcoxie
Schroff, Carle, Springfield
Smith, W. Russell, Carthage
Spalding, David L., Springfield
Stufflebam, Robert E., Springfield
Taylor, Leo T., Neosho
Tsang, John L. K., Springfield
Walker, William M., Springfield
Waterfield, Jim, Springfield
Wilson, Roy E., Springfield
Wyrsch, L. M., Springfield
Yancey, Daniel L., Springfield

Ninth Councilor District—9

Bass, B. J., Salem
Cooper, Claude W., Thayer
Froelich, R. W., Lebanon
Hasek, James A., Mountain Grove
Morgan, W. T., Jr., West Plains
Russell, Barbara E., Rolla
Smith, Rollin H., West Plains
Stricker, E. A., St. James
Wall, Joe A., Houston

Tenth Councilor District—25

Alyea, J. O., Cape Girardeau
Burford, Edwin K., Jr., Cape Girardeau
Camp, Richard V., Jr., Poplar Bluff
Chapman, J. A., Cape Girardeau
Chastain, C. Wm., Farmington
Cook, O. W., Caruthersville
Dettmer, Robert F., Ironton
Farmer, Norma D., Farmington
Hansbrough, E. T., Poplar Bluff
Harwell, J. Lester, Lubbock, Texas
Heeb, Max A., Sikeston
Hill, Ronald T., Dexter
Huckstep, R. A., Farmington
Jung, J. Marshall, Columbia
Kasten, Melvin C., Cape Girardeau
Ladyman, George, Poplar Bluff
McKaskle, C. W., Caruthersville
Rapp, Harold B., Cape Girardeau
Ritter, Raymond A., Cape Girardeau
Ruff, T. E., Poplar Bluff
Sargent, Alden P., Sikeston
Sargent, Richard A., Sikeston
Shriver, Ronald G., Poplar Bluff
Turner, Kirby L., Potosi
Wolff, P. G., Cape Girardeau

Guest Physicians—64

Adams, John P., Washington, D. C.
Chapel, James L., Columbia
Clayton, Paula J., St. Louis

Cowan, Lee, Buffalo, N. Y.
Cross, Harold E., Baltimore, Md.
Custer, G. Stanley, Marshfield, Wis.
Davis, William E., Columbia
Day, Ralph W., Edmond, Okla.
Dockhorn, Robert J., Prairie Village, Kan.
Eggleston, Richard, Roeland Park, Kan.
Ellis, Elliot F., Englewood, Colo.
Evans, Darrel L., Manhattan, Kan.
Garcia, Adolfo G., Kansas City
Gomez, Jose, Kansas City
Grier, John M., Omaha, Neb.
Grinstein, Alberto, Kansas City
Hagan, Garrett, St. Louis
Hale, Ralph, Wichita, Kan.
Hobbs, Geo. H., Warrensburg
Hosseini, Farideh, Kansas City
Howell, R. Rodney, Houston, Tex.
Jirka, Frank J., Jr., River Forest, Ill.
Jones, Robert S., Columbia
Kahn, Guinter, Denver, Colo.
Kearns, Thomas P., Rochester, Minn.
Kelly, William A., St. Louis
Knight, Frank H., Kansas City
Laird, Dale D., Overland Park, Kan.
Lamberti, Joseph, Columbia
Litton, L. O., Columbia
Liu, Chien, Kansas City, Kan.
Lovell, Robert G., Ann Arbor, Mich.
McNabney, W. Kendall, Kansas City
Madiwale, Muniv A., Norwich, Conn.
Marco, Escobar, Kansas City
Mathew, P. M., Nevada
Matovich, Violet B., Kansas City
Melia, B. J., Jr., Prairie Village, Kan.
Mir, Abdul Rauf, Kansas City
Nask, Robert A., Prairie Village, Kan.
Nesmith, Leslie W., Kansas City
Nigro, D. M., Kansas City
Ochsner, John L., New Orleans, La.
Pablo, Joya C., Kansas City
Palmer, Richard E., Alexandria Va.
Parekh, Hasmukh C., Kansas City
Pellecer, Jose, Kansas City
Ratnam, Dasari V., Kansas City
Reed, William A., Kansas City
Rohr, J. H., Mission, Kan.
Rosan, Robert C., St. Louis
Rush, Chas. A., Ft. Worth, Tex.
Ryan, David L., Columbia
Sales, G. J., Kansas City
Schulte, E. J., Shawnee Mission, Kan.
Shelton, Wayne, Prairie Village, Kan.
Slavin, Raymond G., St. Louis
Talkington, Perry, Dallas, Tex.
Taub, Eugene, D.O., Creve Coeur
Tidd, John T., Yankton, S. D.
Tobin, Robert F., Prairie Village, Kan.
Voth, Douglas W., Kansas City, Kan.
Wessel, Jerry L., Columbia
Wherritt, Holman R., Kansas City

There were 543 members, 61 guest physicians, 140 exhibitors, 130 Woman's Auxiliary members, 69 guests registered and 11 staff members. Total registration was 954.

114TH ANNUAL SESSION EXHIBITORS

Altman-Singleton & Company, Kansas City
American Medical Facilities Corp., Hazelwood
AMPAC-MMPAC
Astra Pharmaceutical Products, Inc., Worcester, Mass.
B & B Collection Service, Inc. & Automated Management Systems, N. Kansas City
BBC Health Care Industries, Inc., St. Louis
Berlin-Wheeler, Inc., Jefferson City
Blue Cross and Blue Shield, Kansas City-St. Louis
Bristol Laboratories, Syracuse, N. Y.
Casualty Indemnity Exchange, Denver, Colo.
Clinical Laboratories of St. Louis, Inc., St. Louis
Coca-Cola USA, Chicago, Ill.
Cole Pharmacal Company, Inc., St. Louis
Data Service Agency, Inc., St. Louis
The Doyle Pharmaceutical Company, Minneapolis, Minn.
Encyclopaedia Britannica, Inc., Chicago, Ill.
Health Care Foundation of Missouri, Jefferson City
Homemakers International Company, St. Louis
Lakeside Laboratories, Inc., Milwaukee, Wisc.
Learning Systems, Inc., St. Louis. .
Eli Lilly and Company, Indianapolis, Ind.
The Medical Protective Company, Fort Wayne, Ind.
Merck Sharp & Dohme, West Point, Pa.
Miller Pharmacal Company, St. Louis
Missouri Regional Medical Program, Columbia
Missouri State Medical Association Fall Cruise
North American Pharmacal, Dearborn, Mich.
Organon, Inc., West Orange, N. J.
Ortho Comfort Stores, Phoenix, Ariz.
Ortho Pharmaceutical Corporation, Raritan, N. J.
Parke, Davis & Company, Detroit, Mich.
Postal Investment Company, Inc., Jefferson City
Riker Laboratories, Inc., Northridge, Calif.
Rowell Laboratories, Inc., Baudette, Minn.
Sandoz Pharmaceuticals, Hanover, N. J.
W. B. Saunders Company, Philadelphia, Pa.
G. D. Searle & Company, Chicago, Ill.
Missouri Seven-Up Bottlers, St Louis
E. R. Squibb & Sons, Inc., Princeton, N. J.
Standard Process Laboratories, Inc., Milwaukee, Wisc.
Stuart Pharmaceuticals Division of Atlas Chemical Ind., Inc., Pasadena, Calif.
United Medical Equipment Company, Kansas City
The Upjohn Company, Kalamazoo, Mich.
USV Pharmaceutical Corporation, Tuckahoe, N. Y.

Remember These Dates!

The 115th ANNUAL SESSION

of the Missouri State Medical Association

will be held on

MARCH 29—APRIL 1, 1973

Chase-Park Plaza Hotel St. Louis

Missouri State Medical Foundation

Minutes of the Annual Meeting
Muehlebach Hotel, Kansas City
Friday, April 7, 1972

The meeting was called to order by Byron M. Stuart, M.D., President. A quorum was declared present. Doctor Stuart stated that the minutes of the 1971 Annual Meeting in St. Louis, which immediately followed the Friday afternoon, April 7 Session of the MSMA House of Delegates, had been published in the July, 1971 issue of MISSOURI MEDICINE. It was moved and seconded that the minutes of the 1971 meeting be approved as published. The motion carried.

Doctor Stuart directed attention to the financial statement of the Foundation as of Dec. 31, 1971, a copy of which was offered to those in attendance and which reads as follows:

FINANCIAL STATEMENT FOR THE YEAR 1971

LENNERTSON & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
ST. LOUIS, MISSOURI 63105

January 27, 1972

Missouri State Medical Foundation
515 East High Street
Jefferson City, Missouri 65101

Gentlemen:

The Balance Sheet of the Missouri State Medical Foundation, a nonprofit Missouri corporation, was examined for the year 1971. The Balance Sheet at December 31, 1971 is on a cash basis and the additions for the year are set forth in Exhibit A.

Recorded receipts for the year were traced in total into the bank account as deposits and paid checks were seen for the disbursements. A direct confirmation was received from the depositary in verification of the cash balances on deposit.

A summary of the loans to medical students follows:

Loans Receivable January 1, 1971	$327,681.20
Loans made during the year	54,725.00
Interest transferred to principal	272.50
Total	$382,678.70
Less Loan Repayments	14,834.33
Loans Receivable December 31, 1971	$367,844.37

Positive confirmations were mailed by the Foundation on 214 individual loans which we had received positive confirmation in 1970. On 24 new loans and 5 loans not previously confirmed we mailed positive confirmations with requests to return the confirmations direct to the auditors. Of the 243 loans, 227 were confirmed for a total of $348,820.77 out of total loans of $367,094.37. One additional loan was made Nov. 16, 1971 in the amount of $750.00 which has not been confirmed. Interest income on loans is recorded on a cash basis and the amount received in 1971 was $5,100.23. Accrued interest on outstanding loans at December 31, 1971 amounted to $28,356.31 and is not included in the loan balances in Exhibit A.

Interest received on the savings account and the certificate of deposit amounted to $1,713.17. The certificate of deposit due January 6, 1972 was renewed for six months and interest of $954.16 was received.

The Missouri State Medical Association paid expenses for the Foundation as follows:

State Registration Fee	$ 1.00
Professional Fees	1,300.00
Insurance Premium	1,706.38
Printing	56.16
Federal Income Tax	216.16
Total	$3,279.70

These amounts have not been recorded as receipts and disbursements on the records of the Foundation.

U. S. Treasury Department forms 990 and 990AR will be prepared for the year 1971 and are due for filing by May 15, 1972.

We have examined the Balance Sheet of Missouri State Medical Foundation as of December 31, 1971, prepared on the cash basis. The examination was made in accordance with generally accepted auditing standards and include such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. Since the Balance Sheet is on the cash basis, no opinion is expressed on the attached statement as accrued interest on loans of $28,356.31 and $954.16 of accrued interest on certificate of deposit is not shown. In addition no reserve for uncollectable loans has been provided. The Balance Sheet is prepared on a basis consistent with that of the preceding year.

Yours very truly,
LENNERTSON & CO.
Certified Public Accountants

EXHIBIT A

MISSOURI STATE MEDICAL FOUNDATION

Balance Sheet (Cash Basis), December 31, 1971

Assets

Cash in Checking Account	$ 33,208.08
Savings Account	19,748.16
Certificate of Deposit due Jan. 6, 1972	19,083.51
Loans Receivable from Medical Students	367,844.37
Total Assets	$439,884.12

Fund Reserve

Balance January 1, 1971		$393,330.38
Cash Additions for the year 1971		
Interest on Loans	$ 5,100.23	
Interest on Bank Deposits	1,713.17	
Contributions (see below)	2,987.84	
Assessment of Members—Active $10.00; Junior $5.00	36,752.50	
Total for year 1971		46,553.74
Total Reserve		$439,884.12

Contributions

Wilbur P. McDonald, M.D., St. Joseph, Mo.	$ 100.00
St. Joseph Boosters Club, St. Joseph, Mo.	200.00
Woman's Auxiliary—Jackson County, Kansas City, Mo.	150.00
Max S. Franklin, M.D., St. Louis, Mo.	100.00
William Shucart, M.D., Boston, Mass.	100.00
Paul R. Whitener, M.D., St. Louis, Mo.	250.00
South Central Counties Med. Society, West Plains, Mo.	100.00
Albert D. Cross, M.D., Trenton, Mo.	100.00
Long Drug Store, Boonville, Mo.	100.00
Boonville Medical Group, Boonville, Mo.	100.00
Miller's Medical Arts Pharmacy, Boonville, Mo.	100.00
Sub-total	$1,400.00
Contributions under $100 each	1,587.84
Total Contributions	$2,987.87

Speaking for the MSMF, Doctor Stuart expressed appreciation for the generous contribution and support received during the past year from the Woman's Auxiliary to the MSMA. A discussion followed. In view of the additional medical school now in Missouri (Kansas City) and the increasing demand for loans from Missouri students, it was moved and seconded that Mr. Tom Fox, Assistant Secretary, initiate increased communications with the Woman's Auxiliary in an effort to determine if there is a possibility of the Auxiliary accelerating its interest in and activities on behalf of the MSMF. The motion carried.

At the suggestion of Dr. Doyle C. McCraw, possible ways of encouraging MSMA members to contribute to the MSMF as a memorial for deceased members or friends were discussed. It was pointed out that contributions to the MSMF are tax deductible and perpetual.

Doctor Stuart then called for the next order of business which was election to the Board of Trustees. He asked Dr. David N. Kerr, Chairman, to present the report of the Nominating Committee.

Dr. Miles C. Whitener was elected by unanimous vote to take the place of his father, Dr. Paul R. Whitener, for a five-year term on the Board of Trustees.

Dr. Charles R. Doyle, M.D. was reelected unanimously to a five-year term on the Board of Trustees.

Dr. Walter T. Gunn, incoming MSMA President, was unanimously elected as an Ex Officio Member of the Board to replace Dr. Gerald L. Miller, retiring MSMA President.

Dr. Paul R. Whitener, a Past-President of the Missouri State Medical Foundation, expressed appreciation to all for their efforts on behalf of the Foundation and urged them to continue their work.

The President then called for introduction of new business. There being no new business, he announced that a short meeting of the MSMF Board of Trustees would immediately follow the Annual Meeting of the Missouri State Medical Foundation.

The meeting was adjourned.

Minutes of the MSMF Board of Trustees Meeting
Muehlebach Hotel, Kansas City
Friday, April 7, 1972

The meeting of the Board of Trustees of the Missouri State Medical Foundation was called to order by Byron M. Stuart, M.D., President, immediately after the adjournment of the Annual Meeting.

The first order of business was the election of officers. On behalf of the Nominating Committee, Chairman David N. Kerr, M.D., nominated Dr. Byron Stuart as President. He was reelected unanimously.

Doctor Kerr then announced that Dr. Max S. Franklin had been nominated as Vice-President and Dr. Charles R. Doyle had been nominated as Secretary-Treasurer. It was moved, seconded and approved that these officers be reelected by acclamation.

Mr. Thomas P. Fox was reappointed Assistant Secretary and will continue to assist in the administration of the Foundation's program.

The next order of business was discussion of a method for solicitation of contributions from the full membership of the MSMA. It was reported that in 1971-1972, solicitation letters and other promotions were published in Missouri Medicine with resulting contributions of approximately $3,000. It was pointed out that for the third year, results from letters published in Missouri Medicine have exceeded contributions made in previous years in response to a mailing to the full membership. After discussion, it was decided that solicitation for contributions be made through Missouri Medicine in 1972-1973.

Mr. Fox reported that the status of the MSMF as a tax-exempt, charitable organization had been affirmed by the U.S. Internal Revenue Service. It was suggested that this information be included in the published letter soliciting contributions.

It was moved, seconded and approved that the amount of money saved by the Foundation's decision not to insure student loanees be indicated in the annual financial records of the MSMF.

There being no further business, the meeting was adjourned.

IMPROVED ACCIDENT & HEALTH PROGRAMS

The Disability Income Policy sponsored by the Missouri State Medical Association since 1943 has now been made GUARANTEED RENEWABLE and income benefits are available up to $300.00 weekly to members under age 56 subject to acceptance by the Company.

Also, the Major Hospital and Nurse Expense Program offers higher limits with increased Room & Board Benefits.

For Complete information call or write to:

EGGERT-CARROLL-SCHROEDER AGENCY, INC.
112 N. Fourth St., St. Louis, Mo. 63102
PHONE: 231-4465-66
(Eastern Missouri Administrators)

ALTMAN-SINGLETON & CO.
114 W. 10th St., Kansas City, Mo. 64105
PHONE: 842-6292
(Western Missouri Administrators)

The Council Reports

Meeting of April 9, 1972

Walter T. Gunn, M.D., St. Louis, President, called the meeting to order. Those present were Drs. Gunn; Gerald L. Miller, Kansas City; E. A. Stricker, St. James; John I. Matthews, Jefferson City; Charles R. Gulick, St. Louis; John N. Martin, St. Joseph; Lysle M. Bach, Hannibal; Max S. Franklin, St. Louis; Louis P. Hetlage, Troy; James C. Cope, Columbia; William D. Bradshaw, Clinton; R. Allen Chandler, Kansas City; Howard J. McAlhany, Springfield; Claude W. Cooper, Thayer; Eugene T. Hansbrough, Poplar Bluff; Joseph V. Finnegan, St. Louis; Robert Felix, St. Louis; William D. Mayer and William C. Allen, Columbia; Mrs. Keith D. Jones, Warrensburg; Messrs. Allen D. Smith, Kansas City; Hollister S. Smith, St. Louis; Gary L. Schnedler, Springfield; Edward Hirsch, St. Joseph; John Noble, Kennett; Ray McIntyre, Bob Carroll, Royal O. Cooper and Miss Jean Duensing, Staff, Jefferson City.

Dr. Gunn opened the meeting and asked Dr. Stricker to introduce the new Councilor. Dr. Stricker introduced Dr. Claude W. Cooper, Thayer, as the new Councilor from District 9.

Dr. James C. Cope was nominated and elected Chairman of the Council by unanimous vote and, thereby, became the presiding officer.

Dr. R. Allen Chandler was nominated and unanimously elected Vice-Chairman of the Council. Dr. Charles R. Gulick was nominated and unanimously elected Treasurer, and Dr. John I. Matthews was nominated and elected Secretary by acclaimation.

The next meeting of the Council will be held on June 3-4, 1972, at the Ramada Inn, Jefferson City.

PUBLICATION COMMITTEE REPORT

Dr. Joseph V. Finnegan, Editor of the MSMA Journal, Missouri Medicine, recommended to the Council that the present Publication Committee consisting of Drs. Finnegan, William C. Mixson, Charles S. Sherwin, Byron M. Stuart and Wilfred Wooldridge be reappointed. On motion, duly seconded, the Council agreed that the above members be reappointed to the Publication Committee for a one-year term.

After a brief discussion regarding appointments to the Missouri Medicine Editorial Board, it was moved and seconded that this matter be tabled until the next Council meeting.

FINANCE COMMITTEE REPORT

Dr. Cope then made the following appointments to the Finance Committee: Drs. Gulick, Gunn, Miller, McAlhany and Cope. He indicated that he would make his appointments to the Communications Committee at the next Council Meeting.

Dr. Cope stated that Blue Shield has compiled a notebook that will be sent to the physicians explaining the various Blue Shield plans and indicating the benefits of each plan. He said that he felt this will be very worthwhile.

The Chairman made the following appointments of Councilor Advisors to the standing Commissions of the MSMA for the year 1972-1973:

Commission on Public Affairs	William D. Bradshaw, M.D.
Commission on Continuing Education and Health Manpower	E. T. Hansbrough, M.D.
Commission on Medical Economics, Third Party Medicine and Governmental Relations	Louis P. Hetlage, M.D.
Commission on Medical-Legal Affairs	Howard J. McAlhany, M.D.

HEALTH CARE FOUNDATION

Dr. Bradshaw indicated that the MSMA House of Delegates had passed a resolution stating that a current copy of the Constitution ond Bylaws of the Health Care Foundation of Missouri, Inc. be sent to all members of the Missouri State Medical Association and that this mailing be undertaken at the direction of the Council of MSMA.

Discussion followed regarding how this mailing might be accomplished. Dr. Miller stated that the Board of HCFM has discussed the possibility of such a mailing, but no definite decision had been made. It was stated that, perhaps, MSMA should await action of the Board of HCFM on this.

After further discussion, Dr. Hansbrough moved that the Health Care Foundation be asked to initiate preparations for mailing a copy of the Constitution and Bylaws of HCF to all members of MSMA with our assistance. Motion was seconded and carried. It was then moved and seconded that the suggestion be made to the Foundation that their Constitution and Bylaws might be published in the July 15, Directory Issue of Missouri Medicine. Motion carried.

The Chairman asked that all motions be written and presented to the Secretary so that they may be recorded properly.

COMPREHENSIVE HEALTH PLANNING

Dr. Hetlage reported that there is a study of emergency medical care facilities now being undertaken in Missouri by a task force of the State Comprehensive Health Planning Agency. He made the following motion concerning this matter: That the Council of MSMA encourage the project undertaken by the State Sub-Task Force on Comprehensive Emergency Services of the Comprehensive Health Planning Agency as recommended by the MSMA Ad Hoc Committee on Emergency Services and that a letter be sent to the Governor and the Chairman of the Commission offering assistance and cooperation of the MSMA in the development of this project. Motion was seconded by Dr. Martin.

Dr. Hetlage stated that this project would be funded with money from HEW. The Illinois Plan was discussed. It was pointed out that there were some problems with that particular plan, but it was felt that the Ad Hoc Committee would recommend a more feasible plan. Dr. Hetlage pointed out that he was not seeking approval of a specific plan, but asking only that the Council encourage this and offer our assistance and cooperation in its development. After further discussion, the above motion made by Dr. Hetlage and duly seconded was accepted by the Council.

Dr. Miller thanked the Council for its support during his year as President of the Association and offered his support and cooperation to the Chairman of the Council for the coming year.

The meeting adjourned at 10 AM and was followed by a short Executive Session to discuss the administrative set-up in the MSMA Office.

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CIRCULATES

Missouri Medicine

OURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

JULY 15, 1972
VOLUME 69, NUMBER 7-X

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1972

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115th MSMA Annual Session
March 29-April 1, 1973, St. Louis

Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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8th District, Howard J. McAlhany, M.D., Springfield
9th District, Claude W. Cooper, M.D., Thayer
10th District, Eugene T. Hansbrough, M.D., Poplar Bluff
Gerald L. Miller, M.D., Kansas City, *Immediate Past-President*

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Executive Assistant, Thomas P. Fox
Assistant Executive Secretary, Royal O. Cooper
Public Relations Director, C. C. Swarens

Joseph V. Finnegan
Editor

Purposes of Association

THE PURPOSES of the Missouri State Medical Association are to bring into compact organization the entire medical profession of the State of Missouri with the view of the extension of medical knowledge and the advancement of medical science, to promote and elevate the standards of medical education and the enactment and enforcement of just medical and public health laws, to encourage friendly intercourse among physicians, to guard and sustain measures of interest and advantage to the public and the medical profession and to promote science, knowledge and skill among the medical profession.

1950 MSMA Handbook
Centennial Issue

How to Use This Directory

This Directory includes two rosters of physicians who are members of the Missouri State Medical Association.

The **Roster of Members by County Societies** on page 599 lists each county medical society in alphabetical order, the members of each county medical society and their **street addresses.**

If you are seeking a street address and do not know to which county medical society a member belongs, turn to the **Alphabetical Roster of Members** on page 583 which lists that member's name and the community in which he lives.

Locate the name of that community in the **Guide to County Medical Societies** on page 581 which tells you the county in which that community is located and the county medical society to which that member normally would belong.

The **Roster for the Woman's Auxiliary to the MSMA** on Page 621 lists the officers, directors, committee chairmen, MSMA Advisory Council, presidents of county auxiliaries, districts, state past-presidents and members of each county auxiliary.

For other departments, please refer to the table of contents on the cover page.

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1972-1973 Officers

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President-Elect

Missouri State Medical Association

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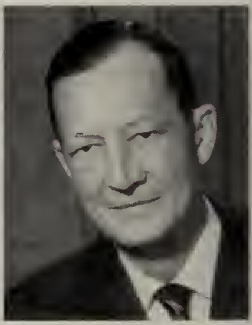
Immediate Past-President

Paul F. Max
Vice-President

C. A. McBurney
Vice-President



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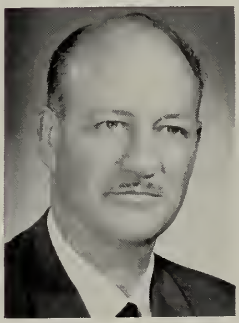
Vice-President

John I. Matthews
Secretary

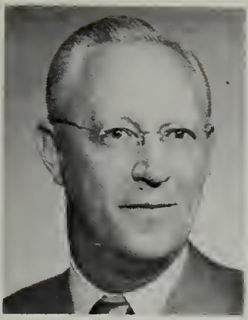
Charles R. Gulick
Treasurer



E. D. Imes
Speaker

R. A. Slickman
Vice-Speaker

AMA Delegates


Stanley S. Peterson

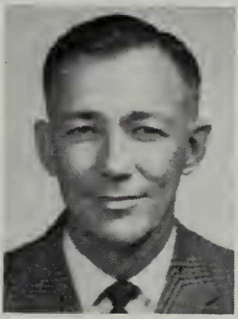
J. Loren Washburn

Hector W. Benoit, Jr.

Arthur W. Neilson

Alternate Delegates

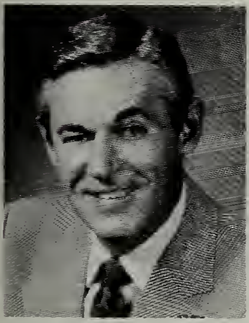
James C. Sisk


Rae W. Froelich

Hugh E. Stephenson, Jr.

Robert W. Kelley

The Council


John N. Martin
1st District

Lysle M. Bach
2nd District

Max S. Franklin
3rd District

Louis P. Hetlage
4th District

James C. Cope
5th District
Chairman

William D. Bradshaw
6th District

R. Allen Chandler
7th District
Vice-Chairman

Howard J. McAlhany
8th District

Claude W. Cooper
9th District

Eugene T. Hansbrough
10th District

MSMA Committees and Commissions 1972-1973

STANDING COMMITTEES

Executive Committee—Walter T. Gunn, St. Louis, Chairman; E. A. Stricker, St. James; John I. Matthews, Jefferson City; Charles R. Gulick, St. Louis; James C. Cope, Columbia; R. Allen Chandler, Kansas City (1973).

Constitution and Bylaws—Kenneth C. Hollweg, Kansas City, Chairman (1973); Paul F. Max, St. Louis (1973); Miles C. Whitener, St. Louis County (1974); Joseph Conrad, Chillicothe (1975); Edwin M. Powell, Springfield (1975).

Publication—Joseph V. Finnegan, St. Louis, Chairman; William C. Mixson, Kansas City; Charles S. Sherwin, St. Louis; Byron M. Stuart, Boonville; Wilfred Wooldridge, Springfield (1973).

Legislative Affairs—John I. Matthews, Jefferson City, Chairman; Gerald L. Miller, Kansas City; James C. Cope, Columbia; Walter T. Gunn, St. Louis; Robert E. Bregant, Jefferson City (1973).

Planning—David N. Kerr, Clayton, Chairman (1975); Albert Cross, Trenton (1973); C. Read Boles, St. Louis (1973); Charles P. McGinty, Cape Girardeau (1974); James C. Cope, Columbia (1974); Hector W. Benoit, Kansas City (1975); Oral B. Crawford, Springfield (1976); James A. Hasek, Mountain Grove (1976); William D. Bradshaw, Clinton (1977); J. Will Fleming, Moberly (1977).

Voluntary Health Agencies—William C. Allen, Columbia, Chairman (1974); Joseph L. Fisher, St. Joseph (1973); Charles E. Lockhart, Springfield (1973); Max E. Teare, Kansas City (1975); Melvin A. Cassel, St. Louis (1975).

STANDING COMMISSIONS

Public Affairs—Richard Bowles, Liberty, Chairman (1973); H. V. Guhleman, Jr., Jefferson City (1973); Hubert Ritter, St. Louis (1973); A. W. Neilson, St. Louis (1973); Richard Sutter, St. Louis (1973); Joseph Kendis, St. Louis (1974); W. W. Tillman, Jr., Springfield (1974); John L. Barnard, Jr., Kansas City (1974); Allen Klippel, St. Louis (1974); Joseph Zimmerman, Kennett (1974); Troy Morgan, Albany (1975); R. A. Ritter, Jr., Cape Girardeau (1975); C. Keith Whittaker, Kansas City (1975); Stanley G. Hall, Hannibal (1975); J. E. Block, Sedalia (1975).

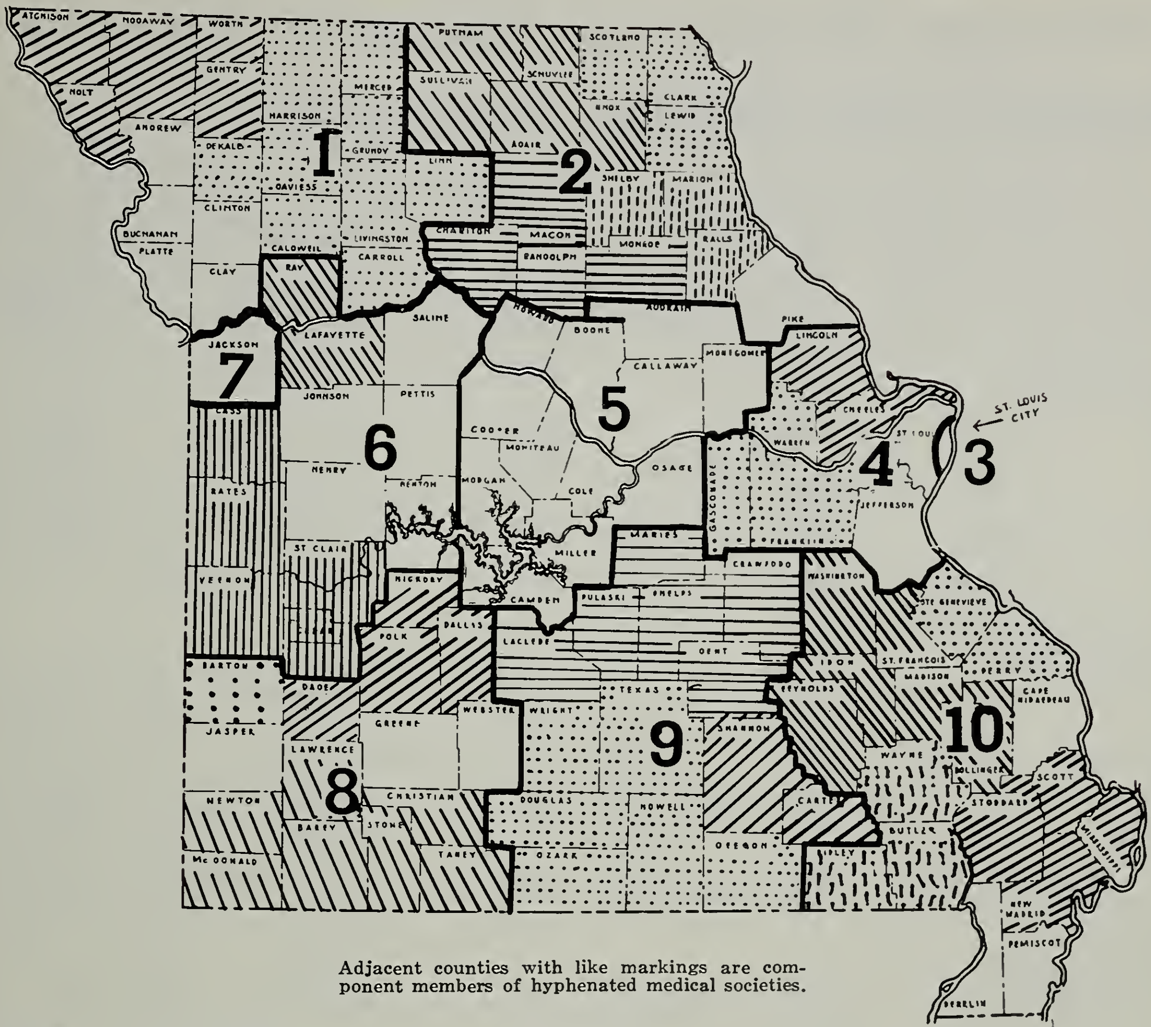
Medical Economics, Third Party Medicine and Governmental Relations—Stanley S. Peterson, Springfield, Chairman (1975); Herbert C. Wiegand, St. Louis (1973); Max A. Heeb, Sikeston (1973); Kenneth K. Keown, Columbia (1973); Rae W. Froelich, Lebanon (1973); Louis P. Hetlage, Troy (1973); Rolla B. Wray, Nevada (1974); Charles W. Chastain, Farmington (1974); Blaine Z. Hibbard, Kansas City (1974); E. Warren Allen, Carrollton (1974); Robert H. Lund, St. Louis (1974); Francis M. Maple, Springfield (1975); Victor B. Buhler, Kansas City (1975); Mark D. Eagleton, St. Louis (1975); E. E. Wadlow, St. Joseph (1975).

Continuing Education and Health Manpower—George H. Ladyman, Poplar Bluff, Chairman (1975); J. F. McDonnell, Kansas City (1973); A. Sherwood Baker, Columbia (1973); Edward D. Kinsella, St. Louis (1973); Paul O. Hagemann, St. Louis (1973); Charles A. Worley, Sweet Springs (1973); Richard A. Fraser, Bonne Terre (1974); R. E. Catanzaro, St. Louis (1974); W. Thomas Morgan, Jr., West Plains (1974); W. Wayne Boydston, Odessa (1974); Charles Spears, Branson (1974); H. Peter Ekern, Mexico (1975); B. J. Bass, Salem (1975); Paul R. Young, Columbia (1975); Lucien W. Ide, St. Joseph (1975).

Medical Legal Affairs—Daniel L. Yancey, Springfield, Chairman (1973); Robert E. Funsch, St. Louis (1973); Frederick J. McCoy, Kansas City (1973); Ned B. Chase, Jr., Joplin (1973); Jack S. Sanders, Jefferson City (1973); Joseph S. Cope, Lexington (1974); Jerome I. Simon, Clayton (1974); Irving H. Clark, Kansas City (1974); Jack R. Eidelman, St. Louis (1974); George P. Wilson, Columbia (1974); Lee T. Ford, Jr., St. Louis (1975); Robert V. Tompson, Moberly (1975); Wilbur P. McDonald, St. Joseph (1975); Harold B. Rapp, Cape Girardeau (1975); William R. McPhee, Kansas City (1975).

Interspecialty Medicine—Cyril Costello, St. Louis, *Missouri State Surgical Society*, Chairman; Norman Asel, Columbia, *Missouri Dermatological Society, Inc.;* John Schweiss, St. Louis, *Missouri Society of Anesthesiologists;* Trevor Watson, Columbia, *Missouri Obstetrical and Gynecological Society;* Herbert E. Rosenbaum, St. Louis, *St. Louis Society of Neurological Sciences;* Walter C. Gray, St. Louis, *Missouri Academy of Family Physicians;* Robert M. Hazen, Kansas City, *Missouri Otolaryngologists;* Truman Schertz, North Kansas City, *Missouri Ophthalmological Society, Inc.;* Edwin D. Wolfgram, St. Louis, *Missouri Psychiatric Association;* Hugh R. Waters, St. Louis, *Missouri Society of Internal Medicine;* Francis X. Lieb, St. Louis, *Missouri Chapter, American Academy of Pediatrics;* Joseph C. Peden, Jr., St. Louis, *Missouri Chapter, American College of Surgeons;* William S. Coxe, St. Louis, *Missouri State Society of Neurological Surgeons;* Richard E. Lord, St. Louis, *Missouri State Orthopedic Association;* William T. K. Bryan, St. Louis, *Missouri State Allergy Association;* Byron E. Watts, Jefferson City, *Missouri Radiological Society;* Maarten Nieuwenhuizen, Columbia, *Missouri Academy of Psychiatry;* William Stoneman, III, St. Louis, *Society of Missouri Plastic Surgeons.*

Councilor Districts and Counties in Each District


ATCHISON
NODAWAY
WORTH
HOLT
GENTRY
ANDREW
HARRISON
MERCER
PUTNAM
SULLIVAN
SCHUYLER
SCOTLAND
CLARK
KNOX
LEWIS
ADAIR
DE KALB
GRUNDY
DAVIESS
LINN
SHELBY
MARION
1
2
CLINTON
BUCHANAN
PLATTE
CALDWELL
LIVINGSTON
CARROLL
CHARITON
MACON
RANDOLPH
MONROE
RALLS
CLAY
RAY
SALINE
HOWARD
BOONE
AUDRAIN
PIKE
LINCOLN
JACKSON
7
LAFAYETTE
MONTGOMERY
CALLAWAY
CASS
JOHNSON
PETTIS
ST. CHARLES
WARREN
ST. LOUIS
ST. LOUIS CITY
5
6
COOPER
MONITEAU
4
3
HENRY
BENTON
MORGAN
COLE
OSAGE
GASCONADE
JEFFERSON
FRANKLIN
BATES
ST CLAIR
MILLER
MARIES
CRAWFORD
WASHINGTON
VERNON
CEDAR
HICKORY
CAMDEN
PULASKI
PHELPS
STE GENEVIEVE
DALLAS
POLK
LACLEDE
DENT
IRON
ST. FRANCOIS
PERRY
BARTON
MADISON
TEXAS
DADE
REYNOLDS
CAPE GIRARDEAU
JASPER
GREENE
WEBSTER
WRIGHT
SHANNON
10
LAWRENCE
9
WAYNE
BOLLINGER
SCOTT
8
NEWTON
CHRISTIAN
DOUGLAS
HOWELL
CARTER
STODDARD
BARRY
STONE
BUTLER
MISSISSIPPI
McDONALD
TANEY
OZARK
OREGON
RIPLEY
NEW MADRID
PEMISCOT
DUNKLIN

Adjacent counties with like markings are component members of hyphenated medical societies.

DISTRICT	COUNCILOR	COUNTIES
First	**John N. Martin, M.D.** St. Joseph	Andrew, Atchison, Buchanan, Caldwell, Carroll, Clay, Clinton, Daviess, De Kalb, Gentry, Grundy, Harrison, Holt, Linn, Livingston, Mercer, Nodaway, Platte and Worth
Second	**Lysle M. Bach, M.D.** Hannibal	Adair, Chariton, Clark, Knox, Lewis, Macon, Marion, Monroe, Pike, Putnam, Ralls, Randolph, Schuyler, Scotland, Shelby and Sullivan
Third	**Max S. Franklin, M.D.** St. Louis	St. Louis (City)
Fourth	**Louis P. Hetlage, M.D.** Troy	Franklin, Gasconade, Jefferson, Lincoln, St. Charles, St. Louis (County) and Warren.
Fifth	**James C. Cope, M.D.** (Chairman) Columbia	Audrain, Boone, Callaway, Camden,* Cole, Cooper, Howard, Miller, Moniteau, Montgomery, Morgan and Osage*
Sixth	**William D. Bradshaw, M.D.** Clinton	Bates, Benton, Cass, Cedar, Henry, Johnson, Lafayette, Pettis, Ray, St. Clair, Saline and Vernon
Seventh	**R. Allen Chandler, M.D.** (Vice-Chairman) Kansas City	Jackson
Eighth	**Howard J. McAlhany, M.D.** Springfield	Barry, Barton, Christian, Dade, Dallas, Greene, Hickory, Jasper, Lawrence, McDonald, Newton, Polk, Stone, Taney and Webster
Ninth	**Claude W. Cooper, M.D.** Thayer	Carter, Crawford, Dent, Douglas, Howell, Laclede, Maries, Oregon, Ozark, Phelps, Pulaski, Shannon, Texas and Wright
Tenth	**Eugene T. Hansbrough, M.D.** Poplar Bluff	Bollinger, Butler, Cape Girardeau, Dunklin, Iron, Madison. Mississippi, New Madrid, Pemiscot, Perry, Reynolds, Ripley, St. Francois, Ste. Genevieve, Scott, Stoddard, Washington and Wayne

---

* Counties with no medical organization.

Component Societies in Affiliation With the Missouri State Medical Association

County	District	President	Address	Secretary	Address
Andrew	1	Gilbert B. Kelley	Savannah	Warren C. Baker	Savannah
Audrain	5	Edgar S. Wallace	Mexico	Thomas L. Dwyer	Mexico
Barton	8	Thomas W. Carroll	Lamar	Vern T. Bickel	Lamar
Boone	5	Norman D. Asel	Columbia	Wm. C. Allen	Columbia
Buchanan	1	Lawrence H. Pifer	St. Joseph	Wm. B. O'Connor	St. Joseph
Butler-Wayne-Ripley	10	Richard V. Camp, Jr.	Poplar Bluff	John L. Hunt	Poplar Bluff
Callaway	5	George C. Groce	Fulton	Richard Osbourn	Fulton
Cape Girardeau	10	Melvin C. Kasten	Cape Girardeau	E. D. Johnson	Cape Girardeau
Chariton-Macon-Monroe-Randolph	2	F. L. Harms	Salisbury	W. D. Chute	Moberly
Clay	1	Paul Revare	Kansas City	Robert J. Gauer	Kansas City
Clinton	1	Wilber B. Spalding	Plattsburg	James H. Sweiger	Plattsburg
Cole	5	C. W. Meinershagen	Jefferson City	Kenneth K. Siu	Jefferson City
Cooper	5	Byron M. Stuart	Boonville	E. T. Humphreys	Boonville
Dallas-Hickory-Polk-Dade	8	George G. Robinson	Humansville	Ben H. Koon	Bolivar
Dunklin	10	Maynard L. Sisler	Kennett	Quinton Tarver	Kennett
Franklin-Gasconade-Warren	4	Donald L. Baker	Union	Thomas J. Mitchell	St. Clair
Grand River Medical Society (Caldwell-Carroll-Livingston-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb)	1	Joe Conrad	Chillicothe	Frank R. Daley	Hamilton
Greene	8	Robert D. Duncan	Springfield	Paul S. Quinn	Springfield
Henry	6	J. O. Smith	Clinton	R. S. Hollingsworth	Clinton
Howard	5			M. P. Leech	Fayette
Jackson	7	Carl M. Peterson	Kansas City	James S. White	Kansas City
Jasper	8	Robert G. Powell	Joplin	Howard H. Roberts	Joplin
Jefferson	4	Roger Allbee	Crystal City	Richard C. Carroll	Crystal City
Johnson	6			Robert L. Cooper	Warrensburg
Lafayette-Ray	6	J. S. Cope	Lexington	W. E. Koppenbrink	Higginsville
Lewis-Clark-Scotland	2	Earl E. Gilfillan	Memphis	Landis Y. Davis	Canton
Marion-Ralls-Shelby	2	James K. Mann	Hannibal	Dale F. Burton	Hannibal
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)	9	Martin M. Hart	Salem	Ted P. Smith	Rolla
Miller	5	Edward O. Shelton	Eldon	Carl T. Buehler	Eldon
Mineral Area Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Bollinger)	10	Robert Dettmer	Ironton	Kirby Turner	Potosi
Moniteau	5	K. S. Latham	California	L. M. Gallagher	California
Montgomery	5	J. O. Helm	New Florence	S. J. Byland	Wellsville
Morgan	5	Ruth Kauffman	Versailles	C. Robert Hall	Versailles
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)	2	Francis Tarvydas	Edina	Milton T. English, Jr.	Kirksville
Northwest Missouri Medical Society (Nodaway-Holt-Atchison-Gentry-Worth)	1	Henry C. Bauman	Maryville	Frank Matteson	Grant City
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)	8	Wilbur D. Dabbs	Neosho	Robert M. Brown	Neosho
Pemiscot	10	James Grable	Portageville	C. W. McKaskle	Caruthersville
Perry-Ste. Genevieve	10	Lawrence W. Feltz	Perryville	J. F. Lutkewitte	Ste. Genevieve
Pettis	6	Jerome E. Block	Sedalia	H. J. Erickson	Sedalia
Pike	2	Lawrence G. Stuerman	Louisiana	Edward K. Jackson	Clarksville
Platte	1	Paul C. Vescovo	Kansas City		
St. Charles-Lincoln	4	Roman E. Hammes	St. Charles	Wm. H. Poggemeier, Jr.	St. Charles
St. Louis Medical Society	3	F. Eugene Pennington	St. Louis	Paul L. Friedman	St. Louis
St. Louis County Medical Society	4	Jack R. Eidelman	St. Louis	Vernon H. Balster	St. Louis
Saline	6	B. F. Knipschild	Marshall	James A. Reid	Marshall
SEMO County Medical Society (Stoddard-New Madrid-Mississippi-Scott)	10	Robert S. Colbert	Sikeston	Thelma C. Buckthorpe	Sikeston
South Central (Howell-Oregon-Texas-Wright-Douglas-Ozark)	9	Jack N. Wiles	West Plains	W. T. Morgan, Jr.	West Plains
Webster	8	T. M. Macdonnell	Marshfield	Robert J. Bareis	Marshfield
West Central Missouri Medical Society (Bates-Cass-Cedar-St. Clair-Vernon)	6	G. H. Reed	Osceola	John Torontow	Nevada

Guide to County Medical Societies

Following is a list of Missouri communities in which MSMA member-physicians are in active practice or reside. Name of the community is followed by the county in which it it is located and the medical society to which physicians of that community normally would belong.

Town	*County*	*Medical Society*
A		
Affton	St. Louis*	
Albany	Gentry	Northwest Missouri
Altenburg	Perry	Perry-Ste. Genevieve
Appleton City	St. Clair	West Central
Arnold	Jefferson	Jefferson
Aurora	Lawrence	Ozarks
Ava	Douglas	South Central
B		
Ballwin	St. Louis*	
Belton	Cass	West Central
Berkeley	St. Louis*	
Bethany	Harrison	Grand River
Bloomfield	Stoddard	SEMO
Blue Springs	Jackson	Jackson
Bolivar	Polk	Dallas-Hickory-Polk-Dade
Bonne Terre	St. Francois	Mineral Area
Boonville	Cooper	Cooper
Bourbon	Crawford	Mid-Missouri
Bowling Green	Pike	Pike
Branson	Taney	Ozarks
Braymer	Caldwell	Grand River
Brentwood	St. Louis*	
Bridgeton	St. Louis*	
Brookfield	Linn	Grand River
Browning	Linn	Grand River
Brunswick	Chariton	Chariton-Macon-Monroe-Randolph
Buckner	Jackson	Jackson
Buffalo	Dallas	Dallas-Hickory-Polk-Dade
Butler	Bates	West Central
C		
Cabool	Texas	South Central
Cainesville	Harrison	Grand River
California	Moniteau	Moniteau
Camdenton	Camden	Camden
Cameron	Clinton	Clinton
Cape Girardeau	Cape Girardeau	Cape Girardeau
Cardwell	Dunklin	Dunklin
Carrollton	Carroll	Grand River
Carthage	Jasper	Jasper
Caruthersville	Pemiscot	Pemiscot
Cassville	Barry	Ozarks
Centralia	Boone	Boone
Charleston	Mississippi	SEMO
Chesterfield	St. Louis*	
Chillicothe	Livingston	Grand River
Clarksville	Pike	Pike
Clayton	St. Louis*	
Clinton	Henry	Henry
Columbia	Boone	Boone
Concordia	Lafayette	Lafayette-Ray
Crane	Stone	Ozarks
Creve Coeur	St. Louis*	
Crystal City	Jefferson	Jefferson
Cuba	Crawford	Mid-Missouri
D		
Desloge	St. Francois	Mineral Area
DeSoto	Jefferson	Jefferson
Dexter	Stoddard	SEMO
Doniphan	Ripley	Butler-Wayne-Ripley
E		
East Prairie	Mississippi	SEMO
Edina	Knox	North Central
Eldon	Miller	Miller
El Dorado Springs	Cedar	West Central
Elsberry	Lincoln	St. Charles-Lincoln
Everton	Jackson	Jackson
Excelsior Springs	Clay	Clay
F		
Farmington	St. Francois	Mineral Area
Fayette	Howard	Howard
Fenton	St. Louis*	
Ferguson	St. Louis*	
Festus	Jefferson	Jefferson
Flat River	St. Francois	Mineral Area
Florissant	St. Louis*	
Forsyth	Taney	Ozarks
Fort Leonard Wood	Pulaski	Mid-Missouri
Fredericktown	Madison	Mineral Area
Frontenac	St. Louis*	
Fulton	Callaway	Callaway
G		
Gallatin	Daviess	Grand River
Gashland	Clay	Clay
Gerald	Franklin	Franklin-Gasconade-Warren
Gideon	New Madrid	SEMO
Gladden	St. Louis*	
Glasgow	Howard	Howard
Glendale	St. Louis*	
Grandview	Jackson	Jackson
Grant City	Worth	Northwest Missouri
Gravois Mills	Morgan	Morgan
Greenfield	Dade	Barton-Dade
H		
Hamilton	Caldwell	Grand River
Hannibal	Marion	Marion-Ralls-Shelby
Harrisonville	Cass	West Central
Hayti	Pemiscot	Pemiscot
Herculaneum	Jefferson	Jefferson
Hermann	Gasconade	Franklin-Gasconade-Warren
Hickman Mills	Jackson	Jackson
Higginsville	Lafayette	Lafayette-Ray
Hillsboro	Jefferson	Jefferson
Hornersville	Dunklin	Dunklin
Houston	Texas	South Central
Humansville	Polk	Dallas-Hickory-Polk-Dade
Huntsville	Randolph	Chariton-Macon-Monroe-Randolph
I		
Illmo	Cape Girardeau	Cape Girardeau
Independence	Jackson	Jackson
Ironton	Iron	Mineral Area
J		
Jackson	Cape Girardeau	Cape Girardeau
Jefferson Barracks	St. Louis*	
Jefferson City	Cole	Cole
Jennings	St. Louis*	
Joplin	Jasper	Jasper
K		
Kansas City	Jackson	Jackson
Kennett	Dunklin	Dunklin
King City	Gentry	Northwest Missouri
Kirksville	Adair	North Central
Kirkwood	St. Louis*	
Knobnoster	Johnson	Johnson
Knox City	Knox	North Central
Koch	St. Louis*	
L		
Ladue	St. Louis*	
Lamar	Barton	Barton
Lawson	Ray	Lafayette-Ray
Leawood (Kan.)		Jackson
Leadwood	St. Francois	Mineral Area

*** Member may belong to St. Louis County Medical Society or St. Louis Medical Society.**

County	*Town*	*Medical Society*
Lebanon	Laclede	Mid-Missouri
Lee's Summit	Jackson	Jackson
Lemay	St. Louis*	
Lexington	Lafayette	Lafayette-Ray
Liberty	Clay	Clay
Lockwood	Dade	Dallas-Hickory-Polk-Dade
Louisiana	Pike	Pike
M		
Macon	Macon	Chariton-Macon-Monroe-Randolph
Malden	Dunklin	Dunklin
Maplewood	St. Louis*	
Marceline	Linn	Grand River
Marshall	Saline	Saline
Marshfield	Webster	Webster
Martin City	Jackson	Jackson
Maryville	Nodaway	Northwest Missouri
Memphis	Scotland	Lewis-Clark-Scotland
Mexico	Audrain	Audrain
Milan	Sullivan	North Central
Moberly	Randolph	Chariton-Macon-Monroe-Randolph
Monett	Barry	Ozarks
Montgomery City	Montgomery	Montgomery
Morehouse	New Madrid	SEMO
Mound City	Holt	Northwest Missouri
Mountain Grove	Wright	South Central
Mountain View	Howell	South Central
Mount Vernon	Lawrence	Ozarks
N		
Neosho	Newton	Ozarks
Nevada	Vernon	West Central
New Florence	Montgomery	Montgomery
New Haven	Franklin	Franklin-Gasconade-Warren
New Madrid	New Madrid	SEMO
Normandy	St. Louis*	
North Kansas City	Clay	Clay
O		
Oak Grove	Jackson	Jackson
Odessa	Lafayette	Lafayette-Ray
O'Fallon	St. Charles	St. Charles-Lincoln
Olivette	St. Louis*	
Osceola	St. Clair	West Central
Overland	St. Louis*	
Owensville	Gasconade	Franklin-Gasconade-Warren
Ozark	Christian	Ozarks
P		
Pacific	Franklin	Franklin-Gasconade-Warren
Palmyra	Marion	Marion-Ralls-Shelby
Paris	Monroe	Chariton-Macon-Monroe-Randolph
Parkville	Platte	Platte
Parma	New Madrid	SEMO
Pattonsburg	Daviess	Grand River
Pattonville	St. Louis*	
Perryville	Perry	Perry-Ste. Genevieve
Piedmont	Wayne	Butler-Wayne-Ripley
Pine Lawn	St. Louis*	
Platte City	Platte	Platte
Plattsburg	Clinton	Clinton
Pleasant Hill	Cass	West Central
Poplar Bluff	Butler	Butler-Wayne-Ripley
Portageville	New Madrid	SEMO
Potosi	Washington	Mineral Area
Prairie Village (Kan.)		Jackson
Princeton	Mercer	Grand River
R		
Raytown	Jackson	Jackson
Reeds Spring	Stone	Ozarks

Town	*County*	*Medical Society*
Republic	Greene	Greene
Rich Hill	Bates	West Central
Richmond	Ray	Lafayette-Ray
Richmond Heights	St. Louis*	
Robertson	St. Louis*	
Rock Hill	St. Louis*	
Rockport	Atchison	Northwest Missouri
Rolla	Phelps	Mid-Missouri
S		
St. Ann	St. Louis*	
St. Charles	St. Charles	St. Charles-Lincoln
St. Clair	Franklin	Franklin-Gasconade-Warren
Ste. Genevieve	Ste. Genevieve	Perry-Ste. Genevieve
St. James	Phelps	Mid-Missouri
St. Joseph	Buchanan	Buchanan
St. Louis City *		
Salem	Dent	Mid-Missouri
Salisbury	Chariton	Chariton-Marion-Monroe-Randolph
Sappington	St. Louis*	
Sarcoxie	Jasper	Jasper
Savannah	Andrew	Andrew
Sedalia	Pettis	Pettis
Shawnee Mission (Kan.)		Jackson
Shelbina	Shelby	Marion-Ralls-Shelby
Shelbyville	Shelby	Marion-Ralls-Shelby
Shrewbury	St. Louis*	
Sikeston	Scott	SEMO
Slater	Saline	Saline
Smithton	Pettis	Pettis
Smithville	Clay	Clay
Springfield	Greene	Greene
Stanberry	Gentry	Northwest Missouri
Steele	Pemiscot	Pemiscot
Steelville	Crawford	Mid-Missouri
Stockton	Cedar	West Central
Strafford	Greene	Greene
Sullivan	Franklin	Franklin-Gasconade-Warren
Sweet Springs	Saline	Saline
T		
Tarkio	Atchison	Northwest Missouri
Thayer	Oregon	South Central
Trenton	Grundy	Grand River
Troy	Lincoln	St. Charles-Lincoln
U		
Union	Franklin	Franklin-Gasconade-Warren
University City	St. Louis*	
V		
Valley Park	St. Louis*	
Vandalia	Audrain	Audrain
Versailles	Morgan	Morgan
W		
Warrensburg	Johnson	Johnson
Warrenton	Warren	Franklin-Gasconade-Warren
Warsaw	Benton	Benton
Washington	Franklin	Franklin-Gasconade-Warren
Waverly	Lafayette	Lafayette-Ray
Waynesville	Pulaski	Mid-Missouri
Webb City	Jasper	Jasper
Webster Groves	St. Louis*	
Wellsville	Montgomery	Montgomery
Wentzville	St. Charles	St. Charles-Lincoln
West Plains	Howell	South Central
Willard	Greene	Greene
Willow Springs	Howell	South Central
Windsor	Henry	Henry
Winona	Shannon	Carter-Shannon
Winston	Daviess	Grand River

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Alphabetical Roster of Members

(See Instructions on Page 575)

A

Aaron, George A., Independence
Abel, Charles C., St. Louis
Abel, Oliver, III, St. Louis
Abele, Wm. A., Boonville
Abelardo, Miguel L., St. Louis
Abell, Walter E., St. Louis
Abella, Bienvenido Z., Kansas City
Abercrombie, Keith J., Kansas City
Abinoja, Conrado B., St. Louis
Abrams, Bernard M., Kansas City
Abrams, Morris, St. Louis
Abramson, Charles L., St. Louis
Acker, Harry L., St. Louis
Ackerman, Lauren V., St. Louis
Ackerman, Norman B., Kansas City
°Ackley, Edward J., Kansas City
Acuff, R. Phillip, St. Joseph
Adams, Harold D., Columbia
Adams, Howard D., Liberty
Adams, Robert B., Jr., Joplin
Adelman, Arthur, Kansas City
Adler, Benard C., St. Louis
Adler, Federico, Kansas City
Agasino, Armela R., St. Louis
Agasino, Gaudencio, St. Louis
Agee, Loren G., Kansas City
Agress, Harry, St. Louis
Aguinaldo, Jaime A.. St. Louis
Ahad, Abdul, St. Joseph
Ahadi, Abd Ul Ahad, St. Louis
Ahern, Archibald M., St. Louis
Ahlering, George H., Clayton
Ahlvin, Robert C., Sikeston
Ahmad, Bashir, St. Louis
Aiken, George A., Marshall
Aitken, Louis F., St. Louis
Aks, Daniel, Kansas City
Akyol, Salim, St. Louis
Albano, Benjamin I., Crystal City
Albera, Victor H., St. Louis
Alberg, Marvin R., Kansas City
Alderman, Thomas F., Kansas City
Alegre, Jorge M., St. Louis
Alex, Morris, St. Louis
Alexander, George, Ballwin
Allain, James J., North Kansas City
Allan, James E., Jefferson City
Allan, James R., Greenwood
Allbee, Roger H., Crystal City
Allebach, Hobart K., Kansas City
Allen, Claude J., Rich Hill
Allen, David O., Joplin
Allen, E. Warren, Carrollton
Allen, Henry C., Clayton
Allen, Hollis N., St. Louis
Allen, James H., St. Louis
Allen, Jerry H., Springfield
Allen, Joseph E., Columbia
Allen, Louis A., N. Kansas City
Allen, Melvin A., St. Louis
Allen, Robert E., Kansas City
Allen, Robert W., Columbia
Allen, S. Lloyd, Kansas City
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Allen, Wiliam B., Kansas City
Allen, William C., Columbia
Allen, William E., Jr., St. Louis
Allen, William H., Nevada
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Allison, Richard F., Mt. Vernon
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(Member Jackson County Medical Society)
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Altheide, J. Paul, St. Louis
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Altringer, Arthur N., Shawnee Mission, Kan.
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Alvarez, Ulises C., St. Louis
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Alvis, Edmund B., St. Louis
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Ames, William H., St. Joseph
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Amjad, Mohammad T., Ballwin
Amlinger, Philipp R., Columbia
Ammatelli. Francis J., Kansas City
Amoury, Raymond A., Kansas City
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Anderson, John M., St. Louis
Anderson, Paul B., Neosho
Anderson, Philip C., Columbia
Anderson, Raymond B., Kansas City
Anderson, Richard W., Kansas City
Anderson, Thomas R., Columbia
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Andrews, Berneil W., Kansas City
Andrus, Bailey C., Kansas City
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Anthony, Dallas, Springfield
Anthony, Elwyn J., St. Louis
Appleberry, Charles H., Rivermines
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Archer, Perry C., Shelbyville
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(Member Mineral Area Medical Society)
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Armstrong, Jay H., Shawnee Mission, Kan.
(Member Clay County Medical Society)
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Arnold, Eugene L., Jennings
Arnold, Herbert M., Lamar
Arnold, John D., Kansas City
Arnold. Richard C., Columbia
Aronoff, Michael E., Kansas City
Aronson, Abraham, St. Louis
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Arst, Herbert E., Kansas City
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Ashley, Hugh, Jr., Cape Girardeau
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Asseff, Carl F., St. Louis
Atcheson, Windsor B., Trenton
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Atkinson, Thomas E., Jr., Springfield
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Auer, Arthur I., St. Louis
Auer, Edward T., St. Louis
Aufderheide, G. Russell, St. Louis
Auguste, Jean Meledain, St. Louis
Augustin, Cesar, St. Louis
Augustine, Robert W., St. Joseph
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Avery, Willard B., Boonville
Avila, Estrella Z., Manchester
Avila, Patricio C., Manchester
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Aykent, Yavuz, St. Louis
Aylward, Howard J., St. Louis
Ayvazian, Vatche H., St. Louis
Azuma, Nobutaka, St. Louis
Azzouni, J. N., Fenton

B

Babka, Joseph J., St. Louis
Bach, Lysle M., Hannibal
Back, Donald K. Springfield
Backer, Matthias H., Jr., St. Louis
Badger, Virginia M., St. Louis
Baer, Alvin J., Kansas City
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Bahn. Charles F., Cape Girardeau
Bai, Sangzin, Festus
Baigos, Lourdes A., St. Louis
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Bailey, Drennan, St. Louis
Bailey, William H., St. Louis
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Baker, James M., Columbia
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Baldwin, Theodore R., Excelsior Springs
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Balster, Vernon H., St. Louis
Bamshad, Jerry, Hazelwood
Bandle, Donald F., St. Louis
Banet, Samuel R., St. Louis
Banks, Frank R., Jackson, Miss.
(Member Clay County Medical Society)
Bankuti, Ferenc, Kansas City
Bannon, Anne E., St. Louis
Banton, M. Roman, St. Louis
Banton, Thomas J., St. Louis
Banton, William C., St. Louis
Barbour, Marvin R., Poplar Bluff
Barden, Frank W., Creve Coeur
Bardsley, John L., St. Louis
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Bare, Edward F., Tarkio
Bareis, Robert J., Marshfield
Barelli, Pat A., Kansas City
Barker, Edward T., St. Louis
Barloon, James H., Kansas City
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Barnett, Floyd A., Paris
Barnett, Gordon P., Shawnee Mission, Kan.
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Barragan, Hector, St. Louis
Barrett, Scott R., St. Louis
Barrios, Francisco, St. Louis
Barrow, Jack, St. Louis
Barry, Gerald W., Kansas City
Barry, William B., Kansas City
Bartlett, Robert W., St. Louis
Bartlett, Willard, Jr., St. Louis
Bartnick, Mitchel L., De Soto
Bartulica, Nicholas, St. Joseph
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Bass, Lewis N., Kansas City
Bass, Walter R., Kansas City
Bates, George C., Kansas City
Battmer, Robert E., Liberty
Baue, Arthur E., St. Louis
Bauer, Harold A., Lockwood
Bauer, John D., St. Louis
Bauer, Joseph A., St. Louis
Bauer, Lafe W., Kansas City
Bauer, Maria, Granite City, Ill.
(Member St. Louis Medical Society)
Bauer, Otto, Granite City, Ill.
(Member St. Louis Medical Society)
Bauer, Robert A., St. Louis
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Bauman, Henry C., Maryville
Baumann, A. R., Steelville
Baumgarten, Walter, Jr., St. Louis
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Bazzoui, Widad, Columbia
Bealer, Louis A., Lebanon
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Beard, William J., Kansas City
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Beasley, L. Kenneth, St. Louis
Beato, David L., St. Louis
Beatty, Arch J., Kansas City
Beatty, Eugene C., Kansas City
Beatty, Nina D., Kansas City
Beaty, William R., St. Ann
Beck, Calvin E., Kansas City
Beck, Paul M., St. Joseph
Becker, Bernard, St. Louis
Becker, Edward J., St. Louis
Becker, George H., St. Louis
Becker, Richard R., Kansas City
Becker, Rolfe A.. Kansas City
Becker, Stanley C., St. Louis
Beckette, Edmund S., St. Louis
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Beckman, Donald E., St. Louis
Beecher. Sheldon B.. Poplar Bluff
Beene, Thomas K., Columbia

° Doctor of Osteopathy.

Beheler, Edward M., St. Joseph
Behrens, Donald T., St. Louis
Behrens, Gerald L., St. Louis
Beidle, Raymond J., St. Ann
Beis, Louis D., St. Charles
Beisner, Donald H., Springfield
Belancourt, Dunet F., St. Louis
Belden, Edgar A., Jefferson City
Belew, Joe E., St. Louis
Bell, Hubert H., Kansas City
Bell, Robert M., St. Louis
Bell, William F., Lee's Summit
Benage, Clarence M., Florissant
Benjamin, Durand, St. Louis
Bennett, James D., Kansas City
Benoit, Hector Wright, Jr., Kansas City
Benson, John F., St. Louis
Benson, Leo J., Jr., Kennett
Benson, Scott C., St. Joseph
Benson, William F., Kansas City
Bentlage, Charles H., Joplin
Bentley, John D., Springfield
Benton, Calvin B., St. Louis
Berard, Louis N., St. Louis
Berenson, Sheldon E., Kansas City
Berg, Edward F., Creve Couer
Berg, Leonard, St. Louis
Berg, Ralph, St. Louis
Berger, Edward J., St. Louis
Bergman, Hugo F., St. Louis
Bergmann, Dwayne, St. Louis
Bergmann, John F., St. Louis
Bergmann, Martin, St. Louis
Bergmann, Victor H., Kansas City
Bergner, Grace E., St. Louis
Berland, Harry I., St. Louis
Berlin, Roger, Kansas City
Berman, William, St. Louis
Bernabe, Florinio H., Manchester
Bernabe, Ofelia M., Manchester
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Berndsen, Gerard H., Rock Hill
Berney, Francis J., St. Joseph
Berni, Anthony A., St. Louis
Bernreiter, Michael, Kansas City
Bernstein, Aaron M., Clayton
Berry, G. Neill, Kansas City
Berry, John W., St. Louis
Berry, Maxwell G., Kansas City
Berry, Paul T., Springfield
Bersche, Bertram L., St. Louis
Berwald, Irwin I., St. Louis
Best, Robert, Overland Park, Kan.
(Member Lafayette-Ray County Medical Society)
Bettonville, Paul J., Jr., St. Louis
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Betz, Robert F., Neosho
Bhend, David P., Joplin
Bickel, Vern T., Lamar
Bickley, James E., Kansas City
Biddy, Ralph L., St. Louis
Bidwell, Robert E. G., Kansas City
Bigger, John F., Jr., St. Louis
Biggs, Alfred D., Jr., Kansas City
Biggs, Fred J., Jr., Poplar Bluff
Biggs, Harry L., Kansas City
Bikales, Victor W., Kansas City
Bills, Marvin L., Kansas City
Bilsky, Nathan, St. Louis
Bindbeutel, Donald A., St. Louis
Binder, Morton A., St. Louis
Bingham, Hal G., Columbia
Bircher, John L., St. Louis
Bird, H. Waldo, St. Louis
Birenbaum, Aaron, St. Louis
Birge, Clifford A., St. Louis
Birsner, Frank H., Carthage
Bishop, Marion D., Florissant
Bishop, Mary M., St. Louis
Bisno, Daniel, St. Louis
Black, Don A., Kansas City
Black, Eugene C., Kansas City
Black, Samuel P. W., Columbia
Black, Thomas C., Jr., Kansas City
Blackman, Nathan, Kirkwood
Blackmore, Thomas A., Windsor
Blackwell, Charles R., University City
Blackwell, Charles W., Columbia
Blades, Ross D., Springfield
Bladow, Terrence C., Joplin
Blair, Vilray P., Jr., St. Louis
Blalock, Robert W., Marshall
Blank, Michael K., De Soto
Blankenship, Dale M., Cape Girardeau
Blankenship, George W., Neosho
Blanton, J. C., Sikeston
Bleisch, Virgil R., St. Louis
Blim, Richard D., Kansas City
Bliss, Joy V., Excelsior Springs
Block, Arnold S., St. Louis
Block, J. E., Sedalia
Bloom, W. A., Fayette
Blount, Lee, Jr., St. Louis

Bockelman, Clifford H., Brentwood
Boedeker, Roy V., St. Louis
Boemer, Lilburn C., St. Louis
Boger, James W., Sedalia
Bohnsack, Ralph W., Brookfield
Bolch, Oscar H., Jr., St. Louis
Boldizar, Albert G., St. Louis
Boldt, Thomas H., St. Louis
Boles, C. Read, Clayton
Bolinske, Robert E., St. Louis
Bollozos, George D., St. Louis
Bondurant, Bryce H., St. Louis
Bonebrake, M. D., Springfield
Bonfanti, Albert L., St. Louis
Bonifacio, Andres S., Crystal City
Boniuk, Isaac, St. Louis
Bonner, John T., Columbia
Bonney, Samuel C., Washington
Boone, Daniel C., Kansas City
Boone, Martin H., Jr., Springfield
Boonshaft, Benje, St. Louis
Bordy, Marvin D., Kansas City
Borenstine, Joseph, Kansas City
Borowsky, Benjamin A., St. Louis
Borsuk, Gregory M., Kansas City
Bort, Robert F., Columbia
Bortnick, Arthur R., St. Louis
Bortnick, Eugene, Kansas City
Boswell, John R., St. Louis
Botwin, Arnold E., Kansas City
Boughnou, Harvey P., Kansas City
Bourke, Thomas E., St. Louis
Bourke, Timothy S., Kansas City
Boutros, Amin, Kansas City
Boveri, Joseph C., St. Louis
Bowdern, Edward H., Richmond Heights
Bowe, Edwin Earl, Jefferson City
Bowen, Stephen F., Jr., St. Louis
Bowerman, Harold H., St. Louis
Bowers, James E., St. Louis
Bowersox, Warren A., Pacific
Bowles, G. Robert, St. Louis
Bowles, Richard P., Liberty
Bowles, William T., St. Louis
Bowman, Melvin C., Neosho
Bowser, John F., Kansas City
Boyarsky, Saul, St. Louis
Boyce, John Milton, Mexico
Boyd, Arthur M., St. Louis
Boyd, George K., Kansas City
Boydston, Catherine, Odessa
Boydston, W. Wayne, Odessa
Boyer, Philip A., Jr., Kansas City
Boylan, Peter C., Kansas City
Boylon, Teresita G., Long View, Wash.
(Member Boone County Medical Society)
Bozzo, Raymond J., Washington
Braby, Howard H., Independence
Bradford, John F., Kansas City
Bradley, Frank R., St. Louis
Bradley, Richard V., Clayton
Bradley, William W., Centralia
Bradshaw, W. D., Clinton
Brady, Arthur M., Kansas City
Brady, Harry R., St. Louis
Brady, Hugh S., Concordia
Brams, Jack B., Kansas City
Brand, Earl L., Webster Groves
Brangle, Robert W., St. Louis
Brasher, Ben H., Lexington
Brasher, Charles A., Mt. Vernon
Braufman, Harvey S., St. Louis
Braverman, Abe E., Kansas City
Braverman, Elliot M., Sedalia
Brazos, John C., Smithton
Bregant, Robert E., Jefferson City
Bremer, Rita, St. Louis
Bremser, Harry L., St. Louis
Brennan, George A., St. Louis
Brennan, Patricia A., St. Louis
Brennan, Raymond J., Chillicothe
Brennan, Robert A., St. Louis
Brennan, Robert V., St. Louis
Brenner, Paul A., Owensville
Brereton, Robert L., Kirkwood
Bricker, Eugene M., St. Louis
Bricker, Neal S., St. Louis
Brion, Pacelli E., St. Louis
Briscoe, John R., Maplewood
Bristow, Robert B., St. Joseph
Broaddus, Loren, Springfield
Brodeur, Armand E., St. Louis
Bronson, Shael S., St. Louis
Brooke, Clement E., Columbia
Brookes, Robert D., St. Louis
Brookreson, Alton D., Poplar Bluff
Brookreson, Alton F., Poplar Bluff
Brooks, John E., St. Louis
Brother, George M., Birmingham, Ala.
(Member St. Louis County Medical Society)
Broun, Goronwy O., St. Louis
Broun, Goronwy O., Jr., St. Louis
Brown, Adrian J., Kansas City

Brown, Daniel W., San Diego, Calif.
(Member St. Louis Medical Society)
Brown, David W., Springfield
Brown, E. Eugene, St. Louis
Brown, Elwyn S., Kansas City
Brown, Frederick B., Aurora
Brown, Irwin S., Kansas City
Brown, James M., St. Louis
Brown, James T., Springfield
Brown, John J., Fulton
Brown, Katherine S., Fulton
Brown, Lyman D., Springfield
Brown, Menzie H., Kansas City
Brown, Robert M., Neosho
Brown, Robert S., Kansas City
Brown, Seymour, St. Louis
Brown, Violeta O., Kansas City
Brownsberger, Robert H., Appleton City
Broyles, Watkins A., Bethany
Bruce, Helen L., St. Louis
Bruce, Leo A., Sikeston
Brugger, Thomas, St. Louis
Brukardt, Diane, Columbia
Brumm, Lawrence W., Kansas City
Bruner, Claude R., Columbia
Bruner, Robert E., Kansas City
Bruns, Kenneth, St. Louis
Brust, Carl H., Mission, Kan.
(Member Jackson County Medical Society)
Bryan, James H., Clayton
Bryan, William H., Jr., Kansas City
Bryan, William T. K., St. Louis
Bryant, Sydney L., St. Joseph
Bryant, T. J., Kansas City
Buben, Robert W., Hannibal
Buckingham, William, Kansas City
Buckner, Robert C., Kansas City
Buckthorpe, Thelma C., Sikeston
Bucy, James G., St. Louis
Budd, John J., Jr., St. Louis
Budke, Harold A., Kansas City
Buehler, Carl T., Jr., Eldon
Buhler, Victor B., Kansas City
Buie, Bruce R., Kansas City
Bumgarner, James E., Columbia
Bumgarner, Roger W., Columbia
Bunting, Williston P., Kansas City
Burch, John E., Joplin
Burcham, Tom R., Jr., Farmington
Burde, Ronald M., St. Louis
Burford, Edwin K., Jr., Cape Girardeau
Burford, Thomas H., St. Louis
Burk, E. K., Kansas City
Burke, Robert J., St. Louis
Burkey, Jordan W., Springfield
Burkhart, Charles A., St. Louis
Burkhart, Edward F., St. Louis
Burks, Jess E., St. Louis
Burmeister, R. William, St. Louis
Burns, Francis J., St. Louis
Burns, Francis R., Hannibal
Burns, Thomas W., Columbia
Burnside, Charles R., Kirkwood
Burr, Donald C., St. Louis
Burry, Virgil F., Kansas City
Burst, Donald O., St. Louis
Burstein, Robert, St. Louis
Burton, Dale F., Hannibal
Busby, William E., Jefferson City
(Member Boone County Medical Society)
Busch, Anthony K., St. Louis
Busiek, Erwin F., Springfield
Busiek, Paul J., Springfield
Busiek, Urban J., Springfield
Bussmann, Donald W., St. Louis
Butcher, Harvey R., Jr., St. Louis
Butcher, Robert W., Kansas City
Butler, E. F., St. Joseph
Butler, Patrick L., Joplin
Butsch, Richard H., St. Louis
Butterworth, Nelson S., Kansas City
Butts, James D., Rolla
Byer, John Albert, Columbia
Byland, Benjamin F., Maryville
Byland, Samuel J., Wellsville
Bynum, William R., Columbia
Byrne, John E., St. Louis
Byrum, Fritz A., Ballwin

C

Cabonce, August L., Florissant
Cabrera, Tomas V., St. Louis
Caciolo, Carlo, St. Louis
Cacioppo, Joseph E., St. Louis
Cadice, John B., St. Louis
Caffrey, Raymond J., Kansas City
Cain, Alvin R., Lamar
Cain, Charles F., Caruthersville
Caldwell, Fred, Poplar Bluff
Caldwell, John K., Kansas City
Callahan, Donald E., Jennings
Callahan, Joseph D., St. Louis

Callaway, Guy D., Springfield
Callaway, Guy D., Jr., Springfield
Callihan, Charles F., West Plains
Callman, George, St. Joseph
Calodney, Martin M., St. Louis
Calovich, Emery R., Kansas City
Camel, H. Marvin, St. Louis
Camp, Richard V., Jr., Poplar Bluff
Campbell, A. J., Sedalia
Campbell, Cecil S., St. Louis
Campbell, Edward D., Cape Girardeau
Campbell, Frederick B., Kansas City
Campbell, James E., Macon
Campos, Francisco J., St. Louis
Canaan, Samuel A., Jr., St. Louis
Cancelada, Juan, Farmington
Canlas, Emilio M., Poplar Bluff
Cannon, Edward M., St. Louis
Cantor, Harvey E., St. Louis
Canty, Eugene J., St. Charles
Capetti, Alex P., Crane
Cappel, Powel B., St. Louis
Capps, Eugene C., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Carleton, Charles E.. Jr., Farmington
Carlin, Albert L., Stanberry
Carlin, M. Richard, St. Louis
Carlson, Arne E., St. Louis
Carlson, E. C., Poplar Bluff
Carlson, Hjalmar E., Kansas City
Carmichael, Francis A., Jr., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Carmona. Gilberto V., Arnold
Carnahan, Charles E., Columbia
Carnell, B. M., Camdenton
Carnes, Victor M., Joplin
Carpenter, George T., St. Joseph
Carpenter, James L., St. Charles
Carpenter, Wallace, Rockport
Carr, Archie D., St. Louis
Carr, G. Thomas, St. Louis
Carr, Philip W., Springfield
Carranza, Mauro J., Hillsboro
Carrier, John A., St. Louis
Carrington, Howard W., Lebanon
Carroll, George A., St. Louis
Carroll, Grayson, St. Louis
Carroll, Percy J., Clayton
Carroll, Richard C., Crystal City
Carroll, Thomas W., Lamar
Carron, Joseph F., Arnold
Carron, Oscar A., Perryville
Carson, Richard A., Ballwin
Carter, Edwin E., Clayton
Carter, Howard, Hamilton
Carter, James R., Neosho
Carter, John F., St. Louis
Cartwright, Robert S., Columbia
Caruso, Alfred A., Kansas City
Cary, John M., St. Louis
Casady, Gilbert N., Kansas City
Casas, Julian R., St. Louis
Case, Mary E. S., St. Louis
Case, William F., Kansas City
Casebolt, Buford T., Kansas City
Casey, Edwin J., St. Louis
Cash, Charles R., Kennett
Cason, Elbert H., St. Louis
Cassel, Melvin A., St. Louis
Casson, Henry. St. Louis
Castillo, Jose L., Sikeston
Castillo, Michael E., Kansas City
Castro, Juan M., Creve Couer
Catalano, J. Denis, Ballwin
Catanzaro, Anthony F., St. Louis
Catanzaro, Francis J., St. Louis
Catanzaro, Rudolph E., St. Louis
Cattaneo, Ernest A., Kansas City
Cavanagh, Denis, St. Louis
Cavaness, Ernest W., Encinitas, Calif. (Member Jackson County Medical Society)
Cayabyab, Pedro C., St. Louis
Cejas, Leandro P., Sikeston
Centner. Paul J., Kansas City
Chadaratana, Phadung, St. Louis
Chakrobortty, Hirendra, St. Louis
Chalkley, Judson I., Columbia
Challener, William A., III, St. Joseph
Chambers, James Q., Jr., Kansas City
Chamness, James T., St. Louis
Chandler, Robert A., Kansas City
Chaplin, Hugh, Jr., St. Louis
Chapman, Charles L., Columbia
Chapman, David W., Independence
Chapman, James H., Kansas City
Chapman, Jean A., Cape Girardeau
Charles, Benjamin H., St. Louis
Charles, Francois R., St. Louis
Charnas, Raymond M., St. Louis
Chase, Ned B., Jr., Joplin
Chastain, Charles W., Farmington
Cheek, Charles W., Columbia
Cheek, J. William, Springfield
Chernoff, Selbert G., Kansas City
Cherre, Anthony J., St. Louis
Cherre, Charles J., St. Louis
Chesanow, Robert L., St. Louis
Chesney, George W., Joplin
Cheuk, Shu-sum, St. Louis
Chiasson, E. Chaille, Columbia
Chieffi, Margaret, St. Louis
Childs, Donnalea S., Kansas City
Childs, Richard M., Kansas City
Chiles, David R.. Smithville
Chinsky, Murray, St. Louis
Chipongian, Raul A., Florissant
Choi, Byung Ho., St. Louis
Chou, Yen Ping, Koch
Christ, Martin H., St. Joseph
Christensen, Roger F., Louisiana
Christianson, Charles S., Mt. Vernon
Christy, John P., Poplar Bluff
Christy, Raymond A., Springfield
Chung, Kap Eun, St. Louis
Chung, Richard T., Kansas City
Chute, W. Deward, Moberly
Ciampa, Thomas, St. Louis
Ciapciak, Stanley J., St. Louis
Clark, Irving H., Kansas City
Clark, Kendall A., Jefferson City
Clark, Richard E., St. Louis
Clarke, Michael J., Springfield
Clary, William F., Springfield
Claseman, Wilma W., St. Louis
Clasen, Arthur C., Miami Beach, Fla. (Member Jackson County Medical Society)
Clawson, James W., Springfield
Clayton, Edgar L., Springfield
Cleary, Frank. St. Louis
Clendenin, William W., St. Louis
Clever, Henry W., Jr., St. Charles
Cline, Harold H., Piedmont
Cline, Merle A., Kansas City
Clisham, John F., Hannibal
Clothier, Robert W., Independence
Coates, Thomas A., St. Louis
Cobb, James R., Kansas City
Coben, Lawrence A., St. Louis
Coburn, Donald F., Kansas City
Cochran, Donald Q., Columbia
Cochran, Jo R., Cape Girardeau
Cochran, Thomas E., Jr., Springfield
Cochrane, Joseph J., Kansas City
Cockerell, Sanford F., Independence
Coffee, Amos L.. Willow Springs
Cofer, T. N., Chillicothe
Coffey, Ralph R., Kansas City
Coffin, Theodore A., Kansas City
Coffman, Esther E. L., Lakeworth, Fla. (Member Ozarks Medical Society)
Cohen, Benjamin H., Clayton
Cohen, Frank, St. Ann
Cohen, Harry K., Kansas City
Cohen, Hillard K., St. Ann
Cohen, Robert A., Kansas City
Cohen, Robert S., St. Louis
Cohle, Richard R., Carthage
Cohrs, Clarence C., Moberly
Cokingtin, Leovigildo, Independence
Cokrhame, Jack, Florissant
Colbert, Robert S., Sikeston
Cole, Robert R., St. Louis
Cole, William R., Smithton
Colglazier, Mary C., Kansas City
Coller, Frederick B., Springfield
Collins, Gretchen D., Macon
Collins, Isabella S., St. Louis
Collins, John A., St. Louis
Collins, John M., St. Louis
Collodi, George A., St. Louis
Colom, George A., Kansas City
Colwill, Jack M., Columbia
Comas, Manuel R., Manchester
Comeau, Richard A., Dexter
Comens, Phillip, St. Louis
Comens, Ruth C., St. Louis
Comer, J. Russell, Independence (Member Clay County Medical Society)
Commerford, John F., St. Charles
Compton, James R., Sarasota, Fla. (Member St. Louis County Medical Society)
Cone, Alfred J., Chesterfield
Conley, William R., Kirkwood
Connell, Evan S., Kansas City
Connelly, Michael W., Florissant
Conrad, Adolph H., Jr., Clayton
Conrad, Joseph A., Chillicothe
Conrad, Marshall B., St. Louis
Conrad. Raymond C., Springfield
Cook, James R., Springfield
Cook, Jerry W., Kansas City
Cook, Marvin A., Florissant
Cook, O. W., Caruthersville
Cook, Thomas B., Richmond
Cooper, Charles S., Kansas City
Cooper, Charles W., Jefferson City
Cooper, Claude W., Thayer
Cooper, Henry T., St. Louis
Cooper, James F., Florissant
Cooper, Lawrence E., Ft. Myers, Fla. (Member Pemiscot County Medical Society)
Cooper, Maurice E., Columbia
Cooper, R. Lee, Warrensburg
Cooper, Robert S., II, Warrensburg
Cooper, Theodore, Bethesda, Md. (Member St. Louis Medical Society)
Cooper, Thomas J., St. Louis
Cope, James C., Columbia
Cope, Joseph S., Lexington
Coppinger, Thomas A., Kansas City
Corday, Robert J., St. Louis
Cordonnier, James K., Springfield
Cordonnier, Justin, St. Louis
Coronado, Mario A., Arnold
Corry, Francis M., Springfield
Cortez, Willie S., Lebanon
Cortner, Mary C., Kansas City
Corvalan, Juan C., St. Louis
Costa, Dominic V., St. Louis
Costello, Cyril J., St. Louis
Costello, Joseph P., Jr., Brentwood
Costen, William S., St. Louis
Costrino. Joseph A., St. Louis
Cottey, J. H., Mexico
Courter, Larry P., Jefferson City
Cowan, George A. B., Kansas City
Cowdry, Edmund V., Jr., St. Louis
Cowherd, Joseph B., Kansas City
Cox, John P., St. Joseph
Cox, Kenneth E., Kansas City
Cox, Mary E., St. Louis
Cox, Robert D., St. Louis
Cox, William A., Jefferson City
Cox, William L., Liberty (Member Jackson County Medical Society)
Coxe, William S.. St. Louis
Cozart, Duane E., Chesterfield
Cozean. Charles H.. Jr., Cape Girardeau
Craft, George A., Columbia
Craig, Alan G., St. Louis
Craig, Irwin T., Joplin
Craig, Owen W. D., St. Joseph
Craig, Richard O., St. Joseph
Craig, Ronald D., Perryville
Crain, James W., Branson
Cramer, Quentin, Parkville
Crane, John Bruce, Springfield
Crawford, Archie L., Joplin
Crawford, Katherine J., University City
Crawford, Oral B., Springfield
Crawford, Robert M., Sullivan
Crayton, Billy G., Waverly
Creech, Joseph C., Troy
Cremer, William J., Fulton
Crespin, Stephen R., St. Louis
Crespo, Horacio T., Florissant
Crespo, Remedios R., Florissant
Crider, Russell J., St. Charles
Crighton, John C., Springfield
Criscione, James R., St. Louis
Criscione, James S., St. Louis
Crispell, Lawrence S., Joplin
Critchlow, Wm. C., Sikeston
Crocker, Albert M., Kansas City
Crockett, James E., Kansas City
Croom, Dorwyn W., Malden
Crosby, Alice S., East Lansing, Mich. (Member Boone County Medical Society)
Cross, Albert D., Trenton
Cross, Edward B., Kansas City
Crossman, Robert W., Webster Groves
Crouch, F. Richard, Farmington
Crow, Martin L., Kansas City
Crowe, John T., Cape Girardeau
Crowell, Hugh C., St. Louis
Crowley, Wm. J., Jr., Columbia
Crozier. Franklin A., Richmond
Cruz, Eligio C., St. Louis
Cruz, Sergio G., Jr., Monett
Csaki, Bela. Kansas City
Cuento, Oblendo A., St. Louis
Culbertson, William F., Kansas City
Culley, Thomas S., Columbia
Cullum, Albert G. J., Middlesboro, Ky. (Member St. Louis County Medical Society)
Cunningham, Darral D., Springfield
Cunningham, E. J., Jr., St. Louis
Curiel, Manuel S., Kansas City
Curran, Desmond, Kansas City
Curran. Kevin E., Kansas City
Curts, Calvin J., Kansas City
Cutcliff, Daniel J., Kansas City
Cutler, Harold M., St. Louis

Cutler, Harry, St. Louis
Czebrinski, Edward W., St. Louis

D

Daake, John W., St. Louis
Dabbs, Wilbur D., Neosho
Dagartzikas, A. K., Town & Country
Dahm, Charles H., Jr., St. Louis
Dahms, Gustave, St. Louis
Daley, Frank R., Hamilton
Daley, Phillip G., St. Louis
Dalton, Arthur R., St. Louis
Dalton, Timothy T., Kansas City
Dames, Richard J., St. Louis
Damron, Edward O., Elsberry
Damron, Oscar H., Warrensburg
Danforth, William H., St. Louis
Danis, Peter G., St. Louis
Danis, Richard K., St. Louis
Dankner, Arnold, St. Louis
Dann, David S., Kansas City
Darnell, Dale E., Kansas City
Darnell, Thomas F. B., Columbia
Dash, Udaya N., St. Louis
Daughaday, William H., St. Louis
Daum, Harold F., Sedalia
Davault, George K., Richmond
Davidson, Kendrick C., Leawood, Kan.
(Member Jackson County Medical Society)
Davidson, Morris, Clayton
Davis, C. Braxton, Nevada
Davis, Charles S., Joplin
Davis, David, Columbia
Davis, Donald R., Kansas City
Davis, Edgar W., St. Louis
Davis, Gustave L., St. Louis
Davis, Herbert V., Kansas City
Davis, Jack M., Kansas City
Davis, John J., Overland Park, Kan.
(Member Jackson County Medical Society)
Davis, Kenneth A., Kansas City
Davis, Landis Y., Canton
Davis, Leonard L., Jr., Mexico
Davis, Martin W., St. Louis
Davis, Mary A., St. Louis
Davis, Wilbur L., Charleston
Davisson, Walter F., Jefferson City
Dawson, Richard, Kansas City
(Member Boone County Medical Society)
Day, Maxwell, McAllen, Texas
(Member Buchanan County Medical Society
Deakin, Rogers, St. Louis
Dean, Francis D., Fayette
Dean, Lee W., Jr., St. Louis
Decanini, Mario, St. Joseph
Deeken, James H., Kansas City
DeGenova, Gerald H., Ste. Genevieve
Deitchman, Robert B., St. Louis
De Jesus, Alberto, St. Louis
de la Torre, John J., Sullivan
DeLeon, Romualdo V., Arnold
Deles, Vincente D., Crystal City
Deligeorges, John, Kansas City
Del Pizzo, Ferdinand, St. Charles
Del Rosario, Horacio O., St. Louis
Del Valle, Fernando, St. Louis
DeMaria, Peter F., Kansas City
DeMott, John D., Kansas City
DeMotte, John A., Kansas City
Dempsey, Herbert A., Lee's Summit
Denk, Alan F., St. Louis
Denney, Richard W., Mountain Grove
Denninghoff, James C., Columbia
Dennis, W. Paul, Flat River
Dennison, Carl F., St. Louis
Denny, Hubert M., Union
Dent, George W., Jr., Farmington
Denton, Robert E., Smithville
Dernoncourt, John E., Smithville
DeTar, Burleigh E., Joplin
Dettmer, Robert F., Ironton
de Ungria, Estelita Maria, St. Louis
de Ungria, Pablo Calma, St. Louis
Deutch, Max, St. Louis
de Vera, Anson E., St. Louis
Devine, John B., St. Louis
Devine, Mark W., Jr., Kansas City
Devins, George S., Kansas City
DeVivo, Darryl C., St. Louis
Dewald, Paul A., St. Louis
DeWeese, Marion S., Columbia
Dewein, Edward G., St. Louis
Dexheimer, Frank R., Columbia
Dexter, James D., Columbia
Deyton, John W., St. Louis
Dick, Earl, Blackwood, New Jersey
(Member St. Louis Medical Society)
Dickler, Donald J., St. Louis
Diehr, Maurice A., St. Louis
Diekroeger, Manuel L., Boonville
Diemer, Peter A., Kirkwood
Dierker, H. D., Farmington
Diestelhorst, James A., Hazelwood
DiLeo, Senatro W., Florissant
Dill, Foster A., Maplewood
Dillard, Burl M., St. Louis
Dillard, Erin M., Springfield
Dills, Joseph N., Springfield
Dimond, E. Grey, Kansas City
Dinelli, Frank E., Poplar Bluff
Dinkins, James A., Cape Girardeau
Diveley, Rexford L., Kansas City
Dixon, George D., Kansas City
Dixon, John R., Brookfield
Dixon, Vewiser L., Kansas City
Dlabal, Luke J., Independence
Dmytryk, Eugene T., St. Louis
Doane, William L., Grandview
Dodge, Mark, Kansas City
Dodge, Milton. Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Dodge, Philip R., St. Louis
Doering, Robert W., Kansas City
Doisy, Philip P., St. Louis
Doisy, Robert A., Glendale
Dolan, C. Terrance, Kansas City
Dolan, Daniel L., Springfield
Dolan, John T., Jr., St. Louis
Domann, Darrel D., Springfield
Domke, Herbert R., Jefferson City
(Member Callaway County Medical Society)
Donaldson, Robert C., St. Louis
Donati, Robert M., St. Louis
Donegan, Judith H., Columbia
Donegan, William L., Columbia
Donley, Leo F., Jr., St. Louis
Donley, Robert R., Monett
Donnell, Harold E., De Soto
Donnell, Robert H., Crystal City
Donnell, Thomas A., De Soto
Dooley, Joseph M., Jr., St. Louis
Dorsch, Ervin H., Independence
Dorton, Robert K., St. Louis
Doucette, Raymond C., St. Louis
Dowd, James F., Jr., St. Louis
Dowell, Donald M., Chillicothe
Dowell, J. Larry, Pattonsburg
Downey, James W., Kansas City
Downey, Jon Patrick, Cape Girardeau
Doyle, Charles R., St. Louis
Doyle, Matthew J., Jefferson City
Drace, Charles C., Jr., St. Louis
Drake, Avery A., Rolla
Drake, Roy F., Kansas City
Drake, William K., Highland, Ill.
(Member St. Louis Medical Society)
Drake, William L., Jr., St. Louis
Draney, Thomas E., Kansas City
Draper, Bernard, Rolla
Dreher, Richard L., Kansas City
Drescher, Emmett B., St. Louis
Drews, Robert C., St. Louis
Drey, Norman W., St. Louis
Dreyer, Carl J., Webster Groves
Dreyer, Philip V., Huntsville
Dreyer, William F., Houston
Drisko, Robert M., Kansas City
Drowns, Bruce V., Kansas City
Drum, Helen M., St. Louis
Drury, Lawrence R., Kansas City
Dubuque, Theodore J., Jr., St. Louis
Duckworth, Gordon L., Jr., Hayti
Duden, Charles W., St. Louis
Duemler, John H., St. Louis
Duemler, Robert H., St. Louis
Duer, Mildred C., Kansas City
Duffy, Adrian, St. Louis
Duffy, Eileen, St. Loius
Duffy, Francis G., St. Louis
Duffy, Oliver F., Trenton
Duggan, John J., Jr., Kirkwood
Dukstein, Walter G., Kansas City
Dulick, Michael, Brentwood
Duling, Gerald J., St. Charles
Dumadag, Virgilio P., Brentwood
Dumonceaux, Leonard J., St. Charles
DuMont, Clement C., St. Joseph
DuMontier, R. J., O'Fallon
Dunaway, Howard A., Sikeston
Duncan, David, St. Charles
Duncan, Robert D., Springfield
Duncan, Wm. H., Kansas City
Dunham, Robert H., N. Kansas City
Dunleavy, James D., Kansas City
Dunmire, George Q., Kennett
Dunn, Robert E., St. Louis
Dunshee, Robert E., Maryville
DuPont, Jean-René, Sikeston
Durnell, Monaford D., Lee's Summit
Durr, Jon W., Columbia
Durst, Henry, Fulton
Dworkin, Saul, St. Louis
Dwyer, Frank X., Kansas City
Dwyer, Hugh L., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Dwyer, Richard M., Glendale, Calif.
(Member St. Louis Medical Society)
Dwyer, Thomas L., Mexico
Dyer, Dallas J., St. Louis
Dzundzev, Penco, St. Louis

E

Eades, Dee W., St. Louis
Eagleton, Mark D., St. Louis
Eanet, Morton P., Kansas City
Earp, Ralph K., St. Louis
Ebel, Eugene H., Florissant
Eber, Carl T., St., Louis
Eberle, Vincent L., St. Louis
Echterhoff, Harry R., St. Louis
Eck, Birkle, St. Louis
Ecker, Decider, Pacific
Eckert, Clarence T., Sarasota, Fla.
(Member St. Louis Medical Society)
Ecklund, Archibald M., San Diego, Calif.
(Member St. Louis Medical Society)
Ector, Henry J., Mexico
Edele, Eugene H., St. Louis
Edelman, Alan H., St. Louis
Edmond, Beauvoir H., St. Louis
Edmonds, Robert W., Sedalia
Edwards, D. R., Sedalia
Edwards, Francis L., Leavenworth, Kan.
(Member Ozarks Medical Society)
Edwards, James E., St. Louis
Edwards, Joseph C., St. Louis
Edwards, Theodore F., Kansas City
Edwards, Waldo B., Kirkwood
Efstathianos, Kimon, St. Louis
Egan, Robert C., St. Louis
Egan, Thomas F., St. Louis
Egea, Fernando M., Kansas City
Eggers, George W. N., Jr., Columbia
Eggleston, Donald E., Macon
Eggleston, Thomas F., St. Louis
Eidelman, Jack R., St. Louis
Eigel, Edwin G., St. Louis
Eimer, Charles E., St. Louis
Eisemann, Gustave, Kansas City
Eisen, Arthur Z., St. Louis
Eisenmann, Benjamin P., New Haven
Ekern, H. Peter, Mexico
Eklund, Alfred W., Pleasant Hill
Eldenburg, Donald, Sedalia
Elders, Frank A., Jr., Cuba
Elias, David J., Independence
Eliasson, Sven G., St. Louis
Eliscu, Juliette, Joplin
Elkins, Ronald F., Springfield
Eller, C. Howe, Clayton
Ellersieck, Dorothy M., St. Louis
Ellett, William H., Appleton City
Ellfeldt, Howard J., Kansas City
Elliott, Raymond G., Kansas City
Elliott, Wade E., Kansas City
Ellis, Francis J., Springfield
Ellis, Harry L., Springfield
Ellison, Leroy E., Warren, Ark.
(Member St. Louis County Medical Society)
Ellsasser, James C., St. Louis
Ellsworth, Willard, Cainsville
Elrod, Dennis B., Cape Girardeau
Elser, Otto H., Independence
Elson, Julius, St. Louis
Emerson, Reynolds L., St. Louis
Emery, Frank E., Springfield
Empson, Charles L., Kansas City
Engel, Lawrence P., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Engelhardt, Robert C., Poplar Bluff
Engelmann, Calvin E., Kansas City
English, Milton T., Jr., Kirksville
English, Wallace D., Cardwell
Ericcson, Samuel E. F., Kansas City
Erickson, H. John, Sedalia
Ernst, Edwin C., Jr., St. Louis
Ernst, Joseph G., St. Louis
Ernst, Richard E., St. Louis
Ernst, Roland P., St. Louis
Eshelman, Albert D., Independence
Esparrago, Francisco R., Jr., Monett
Esquenazi, Albert B., Cambridge, Md.
(Member St. Louis Medical Society)
Esslinger, Arthur T. J., St. Louis
Essmyer, Joseph K., Cape Girardeau
Estes, Albert M., Cape Girardeau
Estes, Jack M., St. Louis
Esther, John R., Joplin
Etienne, Robert B., St. Louis
Eto, Jackson, St. Louis
Eubank, David F., Kansas City
Eubank, Dillard M., Raytown
Eubank, William R., Kansas City

Eubank, William Y., Kansas City
Evans, Elizabeth A., Kansas City
Evans, Ezra L., Jr., Springfield
Evans, Lawrence L., Kansas City
Evens, Ronald G., St. Louis
°Everett, James E., Kansas City
Eversoll, Norton J., Hollywood, Fla.
(Member St. Louis County Medical Society)
Exarhou, Klark, Florissant
Exon, C. Stuart, Jefferson City
Eyerman, Edward L., Jr., St. Louis
Eyermann, Charles H., St. Louis
Eyermann, H. Walter, Warrenton

F

Fabian, Leonard W., St. Louis
Fabito, Daniel C., Manchester
Fabito, Melinda A., St. Louis
Fair, William L., Chillicothe
Fairchild, James F., Perryville
Fairchild, Robert C., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Fakhoury, Donald A., Kansas City
Falk, O. P. J., St. Louis
Fallon, Richard H., St. Louis
Farley, Claude C., Kansas City
Farmer, Norma D., Farmington
Farney, Jacob P., Kansas City
Farnham, Milo M., Independence
Farnsworth, Jesse J., Kansas City
Farrell, Robert J., St. Louis
Farrell, S. L., Washington
Farthing, Gene W., Springfield
Fax, Nancy C., Kansas City
Fayez, Jamil A., Kansas City
Fayne, Fred A., Kansas City
Fee, Chester F., Kansas City
Feeley, Donald R., Ballwin
Fehlman, Bernard F., Jr., St. Louis
Feigin, Ralph D., St. Louis
Feind, Earl E., Rolla
Feinstein, Leon A., St., Louis
Feist, George V., Kansas City
Feist, Wm. Edgar, Kansas City
Felder, James P., St. Charles
Feldman, David, St. Louis
Felix, Robert H., St. Louis
Feller, Harold H., St. Louis
Fellhauer, Carl M., St. Louis
Feltz, Lawrence W., Perryville
Ferguson, Donald S., Kansas City
Ferguson, John L., Springfield
Ferguson, John P., Jr., Springfield
Ferguson, L. H., Jr., Kansas City
(Member Jasper County Medical Society)
Ferguson, Luther J., St. Joseph
Ferguson, Ralph L., Joplin
Ferguson, Robert M., Joplin
Ferguson, Thomas B., St. Louis
Ferguson, Wilson J., Sikeston
Ferneau, James E., Columbia
Ferrara, John P., St. Louis
Ferrell, Thomas E., Jr., Springfield
Ferris, Carl R., Kansas City
°Ferris, Gary W., St. Ann
Ferro, Anthony L., St. Louis
Ferry, Richard J., St. Louis
Files, James B., Jefferson City
Finger, Donald H., St. Louis
Fingerhood, Marvin G., St. Louis
Fingert, Hyman H., St. Louis
Fink, LeRoy L., Florissant
Finkel, Barney W., St. Louis
Finkle, Robert H., Independence
Finley, Freeman L., St. Louis
Finn, Murray E., St. Louis
Finnegan, Joseph V., St. Louis
Fischer, Charles K., St. Louis
Fischer, Edward H., Kansas City
Fischer, Erich, St. Louis
Fischer, John R., Clayton
Fischer, Jose, Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Fischer, Martin J., St. Joseph
Fischer, Theodore, Altenburg
Fischer, Thomas J., Hannibal
Fish, Richard., St. Louis
Fish, Virgil O., St. Louis
Fisher, Joseph L., St. Joseph
Fisher, Stanley D., Sedalia
Fishman, John J., St. Louis
Fishman, Marvin A., St. Louis
Fitch, C. H. Max, Springfield
Fitch, Coy D., St. Louis
FitzGerald, Leo P., St. Louis
Fitzgerald, Robert H., Kansas City
Fitzgerald, William T., St. Louis
Fivian, Gerald L., St. Louis

Flance, Israel J., St. Louis
Flanders, Virgil E., Leawood, Kan.
(Member Clay County Medical Society)
Flanigan, George D., Jr., St. Louis
Flatley, John A., Kansas City
Flavan, David B., St. Louis
Fleishman, Alfred, St. Louis
Fleming, J. Will, Moberly
Fleming, Paul D., St. Louis
Fleming, Robert J., St. Charles
Fleming, Thomas S., Moberly
Fletes, James W., St. Louis
Flores-Vega, Carlos H., St. Louis
Floro, Mariano N., Florissant
Flotte, Bernard H., St. Louis
Flotte, Sylvester A., Florissant
Flynn, Edward P., St. Louis
Flynn, James M., Kansas City
Flynn, John T., St. Louis
Flynn, Josesph E., St. Louis
Flynn, Thomas T., St. Louis
Fogarty, William M., Jr., St. Louis
Fogerson, Virginia L., Springfield
Folck, William P., Kansas City
Folkner, A. L., Warrensburg
Foote, Jerry E., Columbia
Ford, Lee T., Jr., St. Louis
Ford, William, Farmington
Foreman, Phillip B., Hannibal
Forgrave, Leon P., St. Joseph
Forman, George W., St. Joseph
Forman, Louis H., Kansas City
Forsen, James A., Gower
Forsman, Waldo W., Jr., St. Louis
Forster, Armand C., St. Louis
Forsyth, B. Todd, St. Louis
Forsythe, Lees C., Kansas City
Forsythe, Robert W., Kansas City
Forti, John J., St. Louis
Fotopoulos, Chris K., North Kansas City
Fouts, Dallas B., Sr., Independence
Fowler, Fred D., Kansas City
Fowler, I. Charles, N. Kansas City
Fowler, James W., Kansas City
Fowler, Marvin L., West Plains
Fox, Gerald E., St. Joseph
Fox, Leon J., St. Louis
Fox, Robert E., St. Louis
Francis, William C., Springfield
Francisco, Clarence B., Kansas City
Francka, W. Frank, Hannibal
Franco, Pilar Juan, Kansas City
Frank, Alvin R., St. Louis
Franklin, Curtis U., Kansas City
Franklin, Harold A., St. Louis
Franklin, Max S., St. Louis
Fraser, Richard A., Poplar Bluff
Frawley, Thomas F., St. Louis
Frazier, Robert L., Charleston
Frederick, Raymond O., St. Louis
Freedman, Harold, St. Louis
Freedman, Ruth S., St. Louis
Freeman, David M., St. Louis
Freeman, Spencer L., Kirksville
Freiheit, Harold J., St. Louis
Freiman, S. Michael, St. Louis
Freimuth, L. E., St. Louis
Frein, Donald E., Harrisonville
Frerking, Herbert W., St. Louis
Freund, Samuel J., St. Louis
Frick, John P., Kansas City
Friedman, Bernard, St. Louis
Friedman, Ira J., St. Louis
Friedman, Morris L., Kansas City
Friedman, Paul L., St. Louis
Friedman, Robert H., St. Louis
Friedrich, Ernst R., St. Louis
Fries, Armand D., St. Louis
Fries, John W., St. Louis
Friskel, Arthur K., St. Louis
Fritsch, Andrew J., Joplin
Fritzlen, Thomas J., Kansas City
Froelich, Edwin J., Lebanon
Froelich, R. W., Lebanon
Frueh, Bartley R., Columbia
Frumson, Guy H., St. Louis
Fryer, Minot P., St. Louis
Fuchs, George J., Barnett
Fuchs, George J., Jr., Columbia
Fuhrman, Donald L., Kansas City
Fujita, Milton T., St. Louis
Fuleihan, Farid, St. Louis
Fulkerson, Wilbur E., Higginsville
Fulks, Richard B., California
Fullgrabe, Emil A., Jefferson City
Funsch, Robert E., St. Louis
Furla, Gus J., St. Louis
Furlow, Leonard T., Crystal River, Fla.
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Fury, Tex E., Kansas City
Fuson, Levi H., St. Joseph
Fuson, William A., Trenton

G

Gaffney, Caldwell J., St. Louis
Gafney, George T., St. Louis
Gagliardo, Joseph, St. Louis
Gaines, Albert, Kansas City
Gaines, Quentin M., Kirkwood
Gainey, Harold L., Kansas City
Gaitonde, Mangesh R., Kansas City
Galbol, Harley, Excelsior Springs
Galbreath, Ashford M., Kansas City
Gale, Arthur H., Overland
Gale, Joseph F., Chillicothe
Gale, Philip R., St. Louis
Galeota, William R., Columbia
Galinsky, Leon J., Mt. Vernon
Gall, Ira, St. Louis
Gallagher, Lionel M., California
Gallagher, Neil I., St. Louis
Galvez, Sisenande P., Jr., Marceline
Gammel, George E., Columbia
Gandlmayr, Jack M., St. Louis
Gansloser, Wilbert M., Clayton
Gantner, George E., Jr., St. Louis
Gantt, Ernest S., Jr., Mexico
Gantz, John A., St. Louis
Garcia, Charles L., Mexico
Garcia, Francisco, St. Louis
Gard, Raymond F., Wichita, Kan.
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Gardner, Joseph A., Joplin
Gardner, Joseph W., Kimberling City
Garfinkel, Bernard T., St. Louis
Garner, James H., Kansas City
Garner, Lynn M., Jefferson City
Garner, Royal S., Jefferson City
Garrett, Glen H., Columbia
Garrison, David L., St. Joseph
Garrison, Norman A., Jr., Kennett
Garrison, Roy F., Kansas City
Garrison, T. W., Camdenton
Garotto, Lewis J., Columbia
Gary, George, Marceline
Gaskins, John H., Kansas City
Gass, Michael, Adidome, V. R. Ghana
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Gaston, Lamont W., St. Louis
Gaston, Samuel Lee, Joplin
Gauer, Robert J., Kansas City
Gaunt, Frank P., Webster Groves
Gaunt, William D., Columbia
Gauthier, Charles P., Kansas City
Gay, Elizabeth K., Florissant
Gearhart, Merriam, Bethany
Gearhart, Wilbur H., St. Louis
Gedney, William B., Valley Park
Geha, Alexander S., St. Louis
Geha, Braham J., Kansas City
Geiger, William A., Jr., Kansas City
Geise, August W., Jr., St. Louis
Gellman, Elliott F., Ballwin
Gempel, Paul A., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Gentry, Enoch N., Jr., Kansas City
Gentry, Marvin C., Ava
Gentry, Merritt L., Jefferson City
Gentsch, Kenneth W., Glendale
Gerdes, John A., Springfield
German, Walter A., Jr., Springfield
Germann, Donald R., Kansas City
Germuth, Frederick G., Jr., St. Louis
Gernstetter, Sangwill L., Poplar Bluff
Gerst, Aloysius C., Florissant
Gibson, David M., Kansas City
Gibson, Helen F., St. Louis
Gibstine, Marvin H., St. Ann
Giddings, Frank C., Springfield
Giem, Ross N., St. Louis
Gieselman, Ralph V., St. Louis
Giesler, Donald H., Osceola
Giffin, James M., Springfield
Gilani, Abdollah, Excelsior Springs
Gildea, Edwin F., St. Louis
Gildea, Margaret C. L., St. Louis
Gilden, Jerome J., St. Louis
Gillen, Billy A., Kansas City
Gillespie, William J., St. Louis
Gilliland, Charles E., Cameron
Gillispie, Roy, Branson
Gilpin, Doris C., St. Louis
Ginardi, Donald E., Kansas City
Ginsberg, Norman A., Kansas City
Giraparnont, Prabhak, St. Louis
Gish, Rutledge, Fulton
Gist, William W., Kansas City
Gladney, John H., St. Louis
Glasgow, David S., Crystal City
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Glass, William J., Jr., Monett

° Doctor of Osteopathy.

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Glazzard, Chas. D., Olathe, Kans. (Member Jackson County Medical Society)
Glenn, Elmer E., Sun City, Ariz. (Member Greene County Medical Society)
Glover, Jack F., Springfield
Glover, Kenneth, Mt. Vernon
Glynn, Robert R., Springfield
Gnade, Albert J., St. Louis
Goebel, James J., St. Louis
Goebel, Joan M., St. Louis
Goell, Robert S., St. Louis
Goldberg, Isadore E.. Braymer
Goldenberg, Sidney, University City
Goldenson, Max J., St. Louis
Goldfarb, Alvin, St. Louis
Goldkamp, John D., St. Charles
Goldman, Alfred, St. Louis
Goldman, Arnold M., St. Louis
Goldman, Hyman J., St. Louis
Goldman, Melvin L., St., Louis
Goldman, Stanley L., Kansas City
Goldring, Sidney, St. Louis
Goldsich, Edward, Kansas City
Goldstein, Marcy A., St. Louis
Goldstein, Marvin F., Kansas City
Gollub, Samuel W., St. Louis
Gomez, Cesar A., Jr., St. Louis
Gonzalez, M. Garza, Warrensburg
Goodman, J. N., Hardy, Arkansas (Member St. Louis County Medical Society)
Goodman, Nathaniel, St. Louis
Goodrich, Harold A., Webster Groves
Goodson, Wm. H., Jr., Kansas City
Goodwin, Donald W., St. Louis
Goolsbee, Robert L., Kansas City
Gordon, James S., Jefferson City
Gordon, Morris P., Kansas City
Gore, Glenn L., St. Charles
Gorelick, David F., Springfield
Gorla, Wayne O., St. Louis
Gose, Don F., Springfield
Gottsch, Joseph C., Kansas City
Grabau, Gene H., St. Louis
Grable, James D., Portageville
Grabowski, Marie H., Kansas City
Grabske, Charles F., Independence
Grabske, Charles F., Jr., Independence
Gracia, Antonio J., Valdosta, Ga. (Member Buchanan County Medical Society)
Graff, Ralph J., St. Louis
Graham, Patrick G., Kansas City
Graham, Wallace H., Kansas City
Graneto, Joseph A., St. Louis
Grant, Claude S., St. Joseph
Grant, John M., St. Louis
Grant, Neville, St. Louis
Grant, Samuel B., St. Louis
Graul, Elmer G., St. Louis
Graul, Walter P., St. Louis
Graves, Arthur J., Mt. Vernon
Gray, Walter C., St. Louis
Greaney, John F., St. Louis
Grebel, Clement B., St. Louis
Green, J. Richard, Independence
Green, Manuel E., St. Louis
Green, Morton R., Belleville, Ill. (Member St. Louis Medical Society)
Green, William R., St. Louis
Greenberg, Charles, Los Angeles, Calif. (Member Buchanan County Medical Society)
Greenberg, Martin T., Kansas City
Greene, Harry L., Hannibal
Greene, W. Wallace, Kansas City
Greenlund, Nelson, Nevada
Greenman, Marshall B., St. Louis
Gregory, Ralph W., Kansas City
Gresick, Robert J., St. Louis
Griege, Charles W., Florissant
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Griffin, Evelyn, Buffalo
Griffin, Olin A., Jr., Buffalo
Griffin, William T., Columbia
Griffith, John A., Jr., Kansas City
Griffith, John K., Arnold
Griggs, James Y., St. Louis
Grim, Edward M., Columbia (Member North Central Counties Medical Society)
Grimes, Manning E., St. Joseph
Grindon, Joseph B., St. Louis
Groce, George, Fulton
Gronau, Axel R., St. Louis
Grossman, Marvin, Fredericktown
Grove, Gulp W., Knobnoster
Growdon, John A., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Grubb, Paul H., Joplin
Gruenfeld, Gerhard E., St. Louis
Grunberg, Emile, Columbia
Grundmann, William H., St. Louis
Grunt, Jerome A., Kansas City
Guastello, Mario J., Kansas City
Gubin, Alan S., Caruthersville
Guccione, Joseph B., St. Louis
Guhleman, Henry V., Jr., Jefferson City
Guldner, Edmond, Lamar
Gulick, Charles R., St. Louis
Gullett, Charles C., Kansas City
Gummels, Belmont B., St. Louis
Gundle, Sigmund, Kansas City
Gunn, Jack, Versailles
Gunn, Richard W., Kansas City
Gunn, Walter T., St. Louis
Gunter, Joe S., St. Joseph
Gupta, B. S. N., Kansas City
Gurnee, Landon H., Jefferson City
Gustafson, Jon E., Independence
Guthrie, Richard A., Columbia
Guze, Samuel B., St. Louis

H

Haas, Harry D., Kansas City
Habib, Henry N., Kansas City
Haddock, James N., Webster Groves
Haen, Charles J., Springfield
Haffner, Heinz, St. Louis
Haffner, Joel J., Kansas City
Hagan, Daniel J., St. Louis
Hagar, David L., Kansas City
Hagebusch, Omer E., St. Louis
Hagemann, Paul O., St. Louis
Hagen, Duane, St. Louis
Hahn, Frederick W., Jr., Kansas City
Haight, John M., Kansas City
Haith, Edward E., Kansas City
Haith, Walter F.. Kansas City
Haley, Ted M., N. Kansas City
Hall, C. Robert, Versailles
Hall, David G., Columbia
Hall, David W., Springfield
Hall, Durward G., Springfield
Hall, Eugene W., Ferguson
Hall, Fredric C., St. Louis
Hall, James W., Kansas City
Hall, Lee A., Clayton
Hall, Marvin F., Joplin
Hall, Preston C., St. Louis
Hall, Ralph R., Kansas City
Hall, Robert A., St. Louis
Hall, Robert T., Kansas City
Hall, Stanley G., Hannibal
Hall, Thomas B., Arrow Rock
Hall, William K., St. Charles
Hallaba, M. A. S., Joplin
Hallazgo, Santiago Y., St. Louis
Halley, Robert H., Florissant
Hallinger, Earl S., Jr., St. Louis
Halloran, Mark J., St. Louis
Halperin, Phillip H., Kansas City
Hamill, Robert W., Kansas City
Hamilton, Caldwell K., Creve Coeur
Hamilton, Eugene G., Clayton
Hamilton, Eugene H., Joplin
Hamilton, John R., III, Whittier, Calif. (Member St. Louis Medical Society)
Hamilton, Thomas R., St. Louis
Hamilton, William P., Aurora
Hamilton, Wm. P., St. Louis
Hamlin, Wyeth, Hannibal
Hammes, Roman E., St. Charles
Hammler, Christiana V., St. James
Hammond, David T., St. Louis
Hammond, John J., St. Louis
Hampton, Henry E., St. Louis
Hampton, Oscar P., Jr., St. Louis
Hampton, Stanley F., St. Louis
Hanan, Ernest B., Springfield
Handler, Eric, St. Joseph
Handler, Fred P., Jefferson City
Hankin, Norman M., St. Louis
Hanna, Fikri M., Mehlville (Member Boone County Medical Society)
Hanna, Hugh A., Warrensburg
Hanna, Richard E., St. Louis
Hansbrough, Eugene T., Poplar Bluff
Hansel, French K., St. Louis
Hansen, Arthur L., Butler
Hanser, Theodore H., St. Louis
Hanss, Armand W., Springfield
Hantman, Stephen L., Chesterfield
Hardacre, Ruth A., Kansas City
Hardin, William B., Jr., St. Louis
Hardwicke, Henry M., Ashland
Hardy, Guerdan, Clayton
Hardy, Henry M., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Hardy, John W., Kansas City
Hardy, Patrick J., Florissant
Hardy, Samuel W., St. Louis
Hardy, Stanton L., Desloge
Harell, Alex, St. Louis
Harford, Carl G., St. Louis
Harkins, William B., St. Louis
Harkness, Harry, Warrensburg
Harland, Robert E., Ironton
Harless, Morris S., Kansas City
Harlow. Lloyd M., Kansas City
Harmon, Ben C., Springfield
Harms, Florian L., Salisbury
Harms, James F., Nevada
Harned, Bert W., Olathe, Kan. (Member Jackson County Medical Society)
Harner, Casper G., St. Joseph
Harper, Fleming B., St. Louis
Harrell, Henry J., Summerfield, Fla. (Member Dallas-Hickory-Polk-Dade County Medical Society)
Harrin, William R., Kansas City
Harris, Charles W., St. Louis
Harris, Hugh S., Jr., Columbia
Harris, Robert J., Columbia
Harris, Solon P., St. Louis
Harrison, Lee B., St. Louis
Harrison, Richard L., St. Louis
Harrison, Stratton W., Springfield
Harrison, Winston E., Columbia
Hart, L. Wayne, Kansas City
Hart, Martin M., Salem
Hart, William M., Columbia
Harting, Hugh R., St. Louis
Hartman, Paul T., St. Louis
Hartnett, Leo J., St. Louis
Hartnett, Thomas D., St. Louis
Hartstein, Jack, St. Louis
Hartwig, Frederick H., Kansas City
Hartwig, John A., St. Louis
Hartwig, Raymond W., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Harvey, Harold D., Springfield
Harwell, J. Larry, St. Louis
Harwell, J. Lester, Lubbock, Tex. (Member Butler-Wayne-Ripley County Medical Society)
Hasek, James A., Mountain Grove
Hasek, O. Martin, Mountain Grove
Hasenmueller, James J., St. Louis
Hata, Daikichi, Boonville
Hatfalvi, Bela I., St. Louis
Hauser, Robert J., Jefferson City
Hausheer, Herman J., Independence
Haw, Marvin T., Jr., Columbia
Hawk, Bray O., St. Louis
Hawker, William D., St. Louis
Hawkins, George L., Jr., St. Louis
Hawkins, Lee W., Chesterfield
Hayek, Wesley E., Florissant
Hayes, Lawrence L., Kansas City
Hayes, Paul W., St. Joseph
Haynes, James W., St. Louis
Haynes, Solon E., Kansas City
Haynie, William W., Butler
Hazen, Robert M., Kansas City
H'Doubler, Charles E., Springfield
H'Doubler, Francis T., Jr., Springfield
H'Doubler, Peter B., Springfield
Headrick, John A., St. Louis
Hecker, Joseph E., Poplar Bluff
Hedges, Richard C., Excelsior Springs
Heeb, Max A., Sikeston
Heideman, Milo L., St. Louis
Heifetz, Carl J., St. Louis
Heilbrunn, Ilse, Rolla
Heilman, Edward J., Kansas City
Heiman, Avivi, St. Louis
Heins, James N., St. Louis
Helbing, Edward J., Rio Rancho Estates, N. M. (Member St. Louis County Medical Society)
Hellerstein, Stanley, Kansas City
Hellweg, Charles E., Mt. Vernon
Hellweg, Raymond W., Florissant
Helm, James O., New Florence
Helman, Richard G., Kansas City
Henderlite, John W., Creve Coeur
Hendin, Aaron, Olivette
Hendren, Thomas H., Kansas City
Hennelly, John J., St. Louis
Henry, Clarke Latta, Kansas City
Henry, Robert D., Harrisonville
Henschel, Eugene V., St. Louis
Her, Kyu Sook, St. Louis
Herbert, Charles T., Cape Girardeau
Herdoiza, Alfonso W., Kansas City
Herfkens, Kenneth D., Springfield
Herman, Allen I., St. Joseph

Herman, Edwin M., Kansas City
Herman, Morris, St. Louis
Hernandez, Salvadore, St. Louis
Herrman, George V., Kansas City
Hershey, Falls B., St. Louis
Hertel, Ronald C., St. Louis
Hervey, Wm. H., II, Kansas City
Herzog, Godofredo M., Florissant
Hetlage, Louis P., Troy
Heusler, Anton F., St. Louis
Heutel, Lee B., Ballwin
Heyer, Oscar C., St. Louis
Hibbard, Blaine Z., Kansas City
Hickcox, John P., Columbia
Hickerson, William H., Independence
Hickey, Glenn M., Manchester
Hickey, James L., St. Louis
Hickey, Robert F., St. Louis
Hicks, Robert S., St. Louis
Higgins, Philip C., St. Louis
Higgins, Ronald A., Kansas City
Hightower, Harry G., St. Louis
Hilbert, Paul H., St. Louis
Hildreth, H. Rommel, St. Louis
Hill, Jack H., Kansas City
Hill, James E., Fulton
Hill, Ronald T., Dexter
Hill, XaCadene A., St. Louis
Hills, Joseph E., Springfield
Hilton, Paul E., Kirksville
Hinds, R. David, Hannibal
Hink, Frederick W., Independence
Hironimus, John, St. Louis
Hirsch, Joe E., Kansas City
Hite, Dennis E., Lebanon
Hoadley, William D., Kansas City
Hoard, Joseph W., Webster Groves
Hobbs, George H., Warrensburg
Hobbs, John E., St. Louis
Hoctor, Emmett F., Farmington
Hodge, Robert H., Kansas City
Hodgson, Frank H., Kansas City
Hodgson, Sheila, St. Louis
Hoech, George P., Jr., Kansas City
Hoelscher, Harold F., Warrenton
Hoeper, Samuel D., Grandview
Hoffman, Jacob S., Kansas City
Hoffmann, Alan L., Kansas City
Hoffmann, Augustin D., St. Louis
Hoffmann, Lee Martha, Kansas City
Hoffmann, R. Lee, Olathe, Kan.
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Hofling, Charles K., St. Louis
Hofstatter, Leopold, St. Louis
Hogan, Cornelius E., St. Louis
Hogan, Daniel F., Brownsville, Texas
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Hogan, Patrick C., St. Louis
Hogancamp, Glenn E., Ballwin
Hogue, Frank S., Kansas City
Hoja, W. Alexander, Poplar Bluff
Holbrook, Charles K., St. Louis
Holcomb, John K., Cape Girardeau
Holder, Thomas M., Kansas City
Holemon, R. Eugene, St. Louis
Holland, Robert D., Springfield
Holley, Donald B., Camdenton
Hollinger, Lloyd A., Kansas City
Hollingsworth, Ray S., Clinton
Hollis, Richard W., Springfield
Hollo, Vencel W., St. Louis
Hollocher, Richard J., St. Louis
Holloway, Robert B., St. Louis
Hollweg, Kenneth C., Kansas City
Holmes, Daniel E., Springfield
Holmes, David R., Springfield
Holscher, Edward C., St. Louis
Holt, Earl P., Jr., St. Louis
Holt, Waldo S., Kansas City
Holt, William E., St. Louis
Holton, Edward B., Independence
Holtz, Alan S., St. Louis
Holtz, Sumner, St. Louis
Holtzman, Samuel, Chicago, Ill.
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Hook, Waller G., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Hoover, Bernard L., St. Louis
Hoover, H. Lee, Jr., Springfield
Hopeman, Alan R., Columbia
Hopkins, Florian G., Gideon
Hopkins, James P., Kansas City
Hopkins, Thomas J., Sedalia
Hopkins, T. Spencer, Sedalia
Hori, Jose M., Columbia
Horn, Paul C., Cape Girardeau
Horner, John L., St. Louis
Hornstra, Robijn K., Kansas City
Horton, James D., Springfield
Horwitz, Irwin B., St. Louis
Houck, Russell M., Kecoughtan, Va.
(Member Clay County Medical Society)
Houston, Vincent T., St. Louis
Howden, Thomas L., St. Joseph
Howe, Albert L., St. Louis
Howe, Louis F., St. Louis
Howell, Billy D., Brookfield
Hoxworth, Gerald M., Columbia
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Hubbard, Sally L., Springfield
Hubbell, Ira G., Columbia
Huber, K. Herbert, Richmond
Huber, Lasley E., Moberly
Huck, Frank F., Fenton
Huck, Richard F., St. Louis
Huckstep, Robert A., Farmington
Huddleston, Harvey T., Smithville
Hudgens, Richard W., St. Louis
Hudson, G. R., Moberly
Hueser, James N., Columbia
Huet, Raul, Kansas City
Huewe, Douglas A., Springfield
Huggins, Albert M., St. Louis
Hughes, Derek Dominic, Nevada
Hughes, Judson M., St. Joseph
Hughes, Michael F., Kansas City
Hughes, Robert G., St. Louis
Hughes, Shelby B., Clinton
Hulbert, Bernard, St. Louis
Hulstra, Johannes F. W., Springfield
Hummel, Anton J., St. Louis
Hummel, William C., St. Louis
Humphrey, James, Mound City
Humphreys, Edward T., Boonville
Hungate, Carroll P., Kansas City
Hunleth, Frank E., St. Louis
Hunt, John L., Poplar Bluff
Hunt, John W., Jr., Farmington
Hunt, Robert S., Cape Girardeau
Hunt, Thomas R., Kansas City
Hunter, Martin P., Kansas City
Huntington, Ione, Mt. Vernon
Hunzicker, Warren J., Kansas City
Huq, Md. Nasrul, Mexico
Hurd, James R., St. Charles
Hurst, Wilfred W., Joplin
Hurwitt, Frank, Kansas City
Huse, William J., II., Kansas City
Hutchinson, James H., Jr., St. Louis
Hutchinson, William B., St. Louis
Hutto, A. Herman, St. Louis
Hwang, Yung H., St. Louis
Hyde, Lawrence L., Shawnee Mission, Kan.
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Hyman, Anna, St. Louis

I

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Ide, Carl H., Columbia
Ide, Lucien W., St. Joseph
Imes, Elvin D., Maryville
Ingham, Walton C., Kansas City
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Inman, Max M., St. Louis
Ippensen, John H., Springfield
Irick, Carl C., Naples, Fla.
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Irvine, John W., Kansas City
Irwig, Fred, Kansas City
Isaac, Anita M., Springfield
Isbell, Charles H., Carthage
Ise, Frank H., Kansas City
Ishida, Yasuo, St. Louis
Islam, Mohammed N., St. Louis
Isom, Waldo B., Knox City
Ittner, George W., Jr., St. Louis
Ivy, Henry B., Springfield
Izmirlian, Grant, St. Louis

J

Jablonski, Raymond C., St. Louis
Jackson, Edward K., Clarksville
Jackson, Haywood R., Kansas City
Jackson, Robert L., Columbia
Jackson, Vernon B., Fulton
Jackson, William R., Maryville
Jacob, Karl A., Jr., St. Louis
Jacob, Walter P., Kansas City
Jacobs, Charles C., St. Louis
Jacobs, Frederick A., St. Louis
Jacobs, Morton, Kansas City
Jacobs, Walter H., Kansas City
Jaeger, Joseph N., Jackson
Jaffe, Bernard M., St. Louis
Jahanian, Iraj, St. Louis
James, Elizabeth J. P., Columbia
James, Otis E., Jr., Kansas City
James, Ronald C., Columbia
Jameson, James E., Springfield
Janes, Donald R., Kansas City
Janney, James G., Jr., St. Louis
Jansen, Robert, Kansas City
Jaudon, Joseph C., St. Louis
Jayanandaiah, H. P., Hannibal
Jayaram, M. R., Kansas City
Jean, J. Ted, St. Louis
Jeans, Virgil, Joplin
Jenab, Morteza, Kansas City
Jennett, James H., Kansas City
Jensen, Joshua E., Florissant
Jick, Sidney, St. Louis
Jimenez, Jose, St. Joseph
Jobe, Charles L., Jr., Springfield
Joffe, William S., St. Louis
Johnson, C. Laurence, Kansas City
Johnson, Charles Julius, St. Louis
Johnson, Charles S., Warrensburg
Johnson, Dallas A., Kansas City
Johnson, Earl W., Cape Girardeau
Johnson, Edgar W., Jr., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Johnson, Ernest D., Cape Girardeau
Johnson, Gareth R. P., Kansas City
Johnson, George A., Springfield
Johnson, James S., Kansas City
Johnson, Joseph C., Jr., Springfield
Johnson, Joseph E., Kansas City
Johnson, Maurice N., St. Louis
Johnson, Mitchell D., Ferguson
Johnson, Noel M., Springfield
Johnson, Richard E., Columbia
Johnson, Richard L., Kansas City
Johnson, Roy, Ferguson
Johnson, Thomas M., Kansas City
Johnson, Warford B., Springfield
Johnson, William F., Springfield
Johnston, Glen P., St. Louis
Johnston, Joseph L., Springfield
Johnstone, John, Jr., Kirkwood
Johnstone, Paul N., Kansas City
Jolly, Benjamin N., Mexico
Jolly, William H., Mexico
Jonas, Harry S., Jr., Independence
Jones, Andrew B., Soddy, Tenn.
(Member St. Louis Medical Society)
Jones, Augustin, St. Louis
Jones, David N., Cape Girardeau
Jones, Dorothy J., St. Louis
Jones, Edna M., Clinton
Jones, Edward S., Harrisonville
Jones, Gale O., Kansas City
Jones, Grey, Eminence
Jones, Harold L., Springfield
Jones, James B., St. Louis
Jones, James H., St. Louis
Jones, John B., Columbia
Jones, Keith D., Warrensburg
Jones, Marion E., Kansas City
Jones, Otey S., St. Louis
Jones, Richard A., St. Louis
Jones, Samuel T., III, Kansas City
Jones, Theodore R., Kansas City
Jones, Victor, Brentwood
Jones, Vincent L., St. Louis
Jordan, Walter R., Grapeland, Tex.
(Member St. Louis Medical Society)
Jorel, Louis E., Hermann
Jorstad, Louis H., St. Louis
Joseph, Harold J., St. Louis
Joslyn, Harold L., St. Louis
Jost, Charles A., Florissant
Jotte, Richard F., St. Ann
Judd, Donald, St. Louis
Judge, Walter T., Crystal City
Judy, Joseph D., Florissant
Juergens, William G., St. Louis
Jung, Christopher H., Columbia
(Member Jackson County Medical Society)
Jung, J. Marshall, Columbia
(Member Cape Girardeau County Medical Society)
Justus, John B., Kansas City

K

Kabir, Mohammed A., St. Louis
Kahler, Monte R., Bolivar
Kahn, Gary, Columbia
Kahn, Lawrence, St. Louis
Kahn, M. Osman, St. Louis
Kahn, Marvin, Prairie Village, Kan.
(Member Jackson County Medical Society)
Kairuz, Bartholome C., St. Louis
Kaiser, George C., St. Louis
Kallenbach, Glen P., Mexico
Kamada, Tsutomu, O'Fallon
Kamakas, Nicholas, Florissant

Kaminsky, Watson W., St. Louis
Kamuran, Ozgoncu, St. Louis
Kanagawa, Harold K., Jefferson City
Kanarek, Joseph, Kansas City
Kandt, Ray E., Jr., Kansas City
Kane, Clyde E., St. Louis
Kang, Juan, St. Louis
Kantor, Julius M., Kansas City
Kantor, Samuel, Kansas City
Kao, Ming-Shian, St. Louis
Kaplan, Alex H., St. Louis
Kappesser, Netajean B., St. Louis
Kappesser, Roland C., St. Louis
Karandjeff, Apostle D., St. Louis
Kardesch, Milton, St. Louis
Karl, Michael M., St. Louis
Karraker, Alvan G., Farmington
Karsh, Robert S., St. Louis
Kartus, Irving, Kansas City
Kaskie, Clifford R., St. Ann
Kasten, Melvin C., Cape Girardeau
Katf, Nicola, Kansas City
Kauffman, Ruth, Versailles
Kaufman, Robert L., St. Louis
Kaufmann, Herbert H., Kansas City
Kaul, Philip G., Kansas City
Kay, Billy F., Kansas City
Kayanan, Jose C., Kansas City
Kayes, Jack, St. Louis
Kays, Kenneth M., Columbia
Keeble, Charles B., St. Louis
Keefe, David M., St. Charles
Keeler, James E., Kansas City
Keenoy, John J., St. Louis
Keffler, Karl L., St. Louis
Keim, John H., Cape Girardeau
Keitges, Pierre W., Kansas City, Kan.
(Member Jackson County Medical Society)
Keller, Louis, St. Louis
Keller, Maurice J., St. Louis
Keller, Robert M., Wentzville
Kellett, John G., Webster Groves
Kelley, Gilbert B., Savannah
Kelley, Robert W., St. Louis
Kelling, Douglas G., Kansas City
Kelling, Jordan, Waverly
Kelly, John J., St. Louis
Kelly, Marshall W., Jefferson City
Kelly, R. Emmet, St. Louis
Kelsey, Kenneth L., Aurora
Keltner, R. M., Jr., St. Louis
Kendall, Charles A., Kansas City
Kendall, Forrest H., Prairie Village, Kan.
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Kendig, John H., St. Louis
Kendis, Joseph B., St. Louis
Kennard, George K., Kansas City
Kenney, John D., St. Louis
Kenney, Roy E., Neosho
Kent, Bela K., Kansas City
Kenzler, Jack I., St. Louis
Keown, Kenneth K., Columbia
Kernodle, Jefferson D., Kansas City
Kerr, David N., St. Louis
Kerr, Frank T., Monett
Kerr, S. Earl, Columbia
Kessler, Sheldon, Florissant
Ketcham, William M., Kansas City
Ketterman, Grace H., Kansas City
Ketterman, Herbert L., Kansas City
Kettner, Edward G., Kansas City
Key, James S., Springfield
Keyes, Edward L., Clayton
Khan, Abdul G., St. Louis
Khan, Chung H., St. Louis
Kieber, Robert W., St. Joseph
Kieffer, Victor B., Jr., Kirkwood
Kienberger, Paul A., Independence
Kielar, Richard A., Fort Leonard Wood
Kiene, Richard H., Kansas City
Kienzle, Edward C., St. Louis
Kilker, Clarence H., Normandy
Kilker, Donald E., Normandy
Kilo, Charles, St. Louis
Kim, Chung Ki, Hazelwood
Kim, Tchang Man, Columbia
Kimball, Ireland W., Kansas City
Kimball, Merritt H., Kansas City
Kimberlin, Herbert C., Trenton
Kimble, Harvey S., Kansas City
Kimelman, Nathan, St. Louis
Kimura, Richard Y., St. Louis
Kinder, James A., Cape Girardeau
Kinder, Jerry L., Cape Girardeau
Kindred, Lynn H., Kansas City
King, Elbert R., Boise, Idaho
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King, Eustace E., III, St. Louis
King, Francis C., Kirkwood
King, J. Tenbrook, Kansas City
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King, John V., Webster Groves
King, Morris K., St. Louis
King, Phillip E., Liberty
King, Richard H., Clinton
King, Robert J., Columbia
King, Walter R., Kansas City
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Kinsella, Edward D., St. Louis
Kinsella, Peter W., St. Louis
Kinsella, Ralph A., Jr., St. Louis
Kinzie, Jeannie J., St. Louis
Kipnis, David M., St. Louis
Kirkland, Jerry A., Kansas City
Kirkman, Robert E., Joplin
Kirstein, Melvin B., St. Louis
Kissane, John M., St. Louis
Kister, George E., St. Charles
Kistner, William F., St. Louis
Kitchen, William M., Kansas City
Klaff, Daniel D., St. Louis
Klaus, Hanna, St. Louis
Klebba, Larry B., Jefferson City
Klein, Andrew G., St. Louis
Klein, Arnold G., St. Louis
Klein, Bert H., St. Louis
Klein, Edward H., Prairie Village, Kan.
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Klein, Saul J., St. Louis
Kleinschmidt, Clinton, St. Louis
Klenk, Charles L., St. Louis
Kline, Carlyn M., St. Joseph
Kline, Edmund W., St. Joseph
Klinge, Frederick W., St. Louis
Klingner, George M., Springfield
Klingner, George M., Jr., Springfield
Klinkerfuss, George H., St. Louis
Klippel, Allen P., St. Louis
Klippel, Bernhardt W., St. Louis
Kloecker, Richard J., St. Ann
Kloecker, Robert P., St. Louis
Knabb, Arthur D., Springfield
Knabb, Kenneth E., Springfield
Kneal, E. Ellsworth, St. Louis
Kneibert, Fred L., Poplar Bluff
Knepper, Paul A., St. Joseph
Knese, Luke A., San Juan Capistrano, Calif.
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Knight, Franklin P., St. Louis
Knight, John S., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Knight, Lyle B., Lee's Summit
Knight, William A., Jr., St. Louis
Knipschild, Bedford F., Marshall
Knoch, H. Kermit, Kansas City
Knock, Henry L., Kirkwood
Knowles, R. R., St. Louis
Knowlton, Norman P., Jr., St. Louis
Knutson, Carl O., Columbia
Koch, Robert E., Clayton
Koehler, George A., St. Louis
Koehler, John W., Joplin
Koenig, Marvin I., Florissant
Koerner, Kenneth A., St. Louis
Koessel, Arthur W., St. Louis
Kohler, Louis H., St. Louis
Kolker, Allan E., St. Louis
Kolze, Vernon W., Springfield
Komanetsky, William M., St. Louis
Konzelmann, John A., St. Louis
Koon, Ben H., Bolivar
Koontz, Paul G., Kansas City
Kopp, Jules H., St. Louis
Kopp, Leonard J., St. Louis
Koppenbrink, Walter E., Jr., Higginsville
Kopta, Joseph A., St. Louis
Korenblat, Phillip E., St. Louis
Korn, Robert L., Clayton
Korth, William M., Sarasota, Fla.
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Kostianovsky, Jorge E., St. Louis
Kotner, Lawrence M., University City
Koutsoumpas, William V., St. Louis
Kovac, S. Robert, St. Louis
Kowert, Edward H., St. Louis
Kozal, Francis L., Crystal City
Kozlowski, Albert E., St. Louis
Kraft, Jacob, Kansas City
Kramer, Fred, St. Louis
Kramolowsky, Helmuth H., St. Louis
Kraner, Justin F., University City
Kranson, Seymour J., Independence
Kratz, Paul E., Cape Girardeau
Kraus, Frederick T., St. Louis
Krause, G. Lynn, Jr., St. Louis
Krebs, Joseph M., St. Louis
Kroe, Donald J., Belleville, Ill.
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Kromer, Charles, St. Louis
Kronemer, Norton S., St. Louis
Kubin, Milford T., Columbia
Kuczer, Arnoldo, Villa Park, Ill.
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Kuenzi, Donald E., Kansas City
Kuhlman, Robert E., St. Louis
Kuhn, John R., Jr., Joplin
Kuhn, Nobuko O., St. Louis
Kuhn, William F., II, Kansas City
Kulak, Gary, St. Louis
Kulowski, Jacob, St. Joseph
Kurth, Robert K., St. Louis
Kurtz, Karl J., Kansas City
Kuruvilla, George, Kansas City
Kurz, Rudolph F., Alton, Ill.
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Kusama, Haruo, St. Louis
Kutryb, Walter J., Florissant
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Kyger, John E., Independence

L

Lachance, Leopold, Centralia
Lacson, Leticia D., St. Louis
Lacy, Paul E., St. Louis
Ladd, Charles B., St. Louis
Ladenson, Roland P., Columbia
LaDriere, Raymond J., Creve Coeur
Ladyman, George H., Poplar Bluff
LaHue, William C., Lexington
Laird, John M., Jr., Florissant
Lally, James J., Kansas City
Lam, Ernesto S., St. Louis
Lam, Robert L., St. Louis
Lamar, Robert F., Kansas City
Lamb, Wanda, St. Louis
Lambert, Marian, Kansas City
Lambie, Rodger W., Kansas City
Lampton, Lawrence M., Kansas City
Lamy, John E., Sedalia
Landau, William M., St. Louis
Landers, Burnell, Kansas City
Landhuis, L. R., Columbia
Landis, George K., Kansas City
Landry, J. Hubert, St. Louis
Lane, Clinton W., St. Louis
Lane, Daniel K., St. Louis
Lang, John J., St. Louis
Lange, Adolph C., St. Louis
Langeluttig, Harry V., Nevada
Langhus, Melvin O., N. Kansas City
Langlois, Paul J., St. Louis
Langston, Walter R., Springfield
Lanier, Earl W., St. Louis
Lankford, Harold D., Mexico
Lanning, R. James, Kansas City
Lanning, Richard C., Ste. Genevieve
Lanning, Robert J., Hannibal
Lansche, Elmer A., St. Louis
Lansche, W. Edward, St. Louis
Lapi, Angelo, Shawnee Mission, Kan.
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Lapp, Harry C., Kansas City
Larocca, Felix E. F., St. Louis
Larsen, Kenneth V., St. Louis
Larson, Paul U., St. Louis
Lassar, Gilbert N., St. Louis
Latham, Kenyon S., California
Latham, Raymond W., Kansas City
Latimer, Walter N. A., Hannibal
Lattinville, Henry E., Florissant
Lau, Luis, St. Louis
Lauber, Joseph J., St. Louis
Lauer, Daniel J., Kansas City
Lauer, John D., St. Louis
Laux, France A., St. Louis
Lawrence, George H., St. Louis
Lawrence, John R., Marshall
Lawton, John T., St. Louis
Lawton, Lawrence M., St. Louis
Layle, John K., Jr., Kansas City
Layton, Ira C., Kansas City
Leach, Jon R., Maryville
Leach, Wilfred, St. Louis
Leagus, Charles J., Jr., Springfield
LeBlanc, Leo J., St. Louis
L'Ecuyer, Jerome L., St. Louis
Lederer, Charles M., Warrensburg
Lederman, Joseph, St. Louis
Lee, Carleton H., St. Joseph
Lee, Fransiska, St. Louis
Lee, Gerald B., Kansas City
Lee, Henry A., Kansas City

Lee, King Ying, Kansas City
Lee, Tae Hung, Kansas City
Lee, Yeu-Tsu, Columbia
Leech, Charles A., Columbia
Leech, Maurice P., Fayette
Leeper, Sidlee W., Columbia
Lefebvre, Flordeliza, St. Joseph
Le Fevre, Philip J., Springfield
Legan, John K., Kennett
Lehman, Philip C., St. Joseph
Lehman, Ralph A. W., Denver, Colo.
(Member St. Louis Medical Society)
Lehner, Richard L., Kansas City
Leidinger, Karl J., Republic
Leifer, William W., Kansas City
Leightner, William, St. Louis
Leitch, Cecil G., Blue Springs
Lembeck, Joseph A., St. Louis
Lemmon, George B., Springfield
Lenobel, Milton I., Clayton
Lentz, Clark H., Kansas City
Lentz, Harold C., Neosho
Leo, William A., Kansas City
Leonhardt, Erwin M., St. Louis
Leroux, Gene H., Doniphan
Lerwick, Everett R., St. Louis
Leslie, Charles H., Kirkwood
Leslie, J. Paul, Jackson, La.
(Member Cole County Medical Society)
Leslie, James T., Jr., Jefferson City
Lestmann, Henry E., Doniphan
Levey, Harry B., Kansas City
Levey, Simon A., St. Louis
Levin, Marvin E., St. Louis
Levitt, Joseph, St. Louis
Levy, Irwin, St. Louis
Levy, Jerome F., St. Louis
Levy, Morton A., St. Louis
Lewellen, Charles H., Louisiana
Lewin, Wilbur H., St. Louis
Lewis, Charles R., Florissant
Lewis, James E., Jr., St. Louis
Lewis, Noel R., Springfield
Lewis, Ray B., Rocheport
Lewis, Revis C., Kansas City
Leydig, Stanley M., St. Louis
Liang, Howard S., St. Louis
Liang, Jing C., Independence
Liao, Kun T., St. Louis
Lichtor, Alexander, Kansas City
Lichtor, Joseph M., Kansas City
Lichty, Charles A., Shelbina
Lieb, Francis X., St. Louis
Lieb, Otto, St. Louis
Lieberman, B. Albert, Jr., Kansas City
Lieberman, David M., St. Louis
Liese, Grover B., St. Louis
Lila, Aram, Independence
Lilly, Douglas R., St. Louis
Lindberg, Donald, Columbia
Lindeman, Carl H., St. Louis
Lindeman, John, St. Louis
Lindgren, Carleton J., Kansas City
Lindquist, Carl N., Reeds Spring
Ling, Walter, Sepulveda, Calif.
(Member St. Louis Medical Society)
Link, Alexander J., St. Louis
Link, Vance E., Independence
Lins, Robert D., Manchester
Linsenmeyer, Charles M., St. Charles
Linville, Howard E., Kansas City
Lipschitz, Ervin, St. Louis
Lipsitz, Ellis S., St. Louis
Lischer, Carl E., St. Louis
Lissner, Arthur B., O'Fallon
Little, Monroe H., St. Louis
Littlejohn, Robert T., N. Kansas City
Littmann, Lewis E., St. Louis
Litton, Lyle D., Springfield
Litwiller, R. W., Columbia
Litzow, Louis T., St. Louis
Liu, Min-Jun, St. Louis
Livingston, Don, St. Louis
Llewellyn, Henry J., St. Louis
Lloyd, Ivan E., Kansas City
Lockhart, Charles E., Springfield
Lodwick, Gwilym S., Columbia
Loeb, Richard H., Springfield
Loeb, Virgil, Jr., St. Louis
Loeffel, Ellen S., St. Louis
Logue, John T., Columbia
Lohmar, Roland E., Columbia
Lohr, Robert W., St. Louis
Lohrentz, Lois H., Shawnee Mission, Kan.
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Loitman, Bernard, St. Louis
Londe, Alan M., St. Louis
Londe, Sol, St. Louis
London, Stanley L., St. Louis
Lonergan, Warren M., St. Louis
Long, Curtis W., Butler
Long, David S., Harrisonville
Long, Frank B., St. Louis
Long, R. Stacy, Kansas City
Long, Robert W., St. Louis
Longenecker, Joe L., Joplin
Longnecker, David E., Columbia
Lonsway, Maurice J., St. Louis
Lonsway, Maurice J., Jr., St. Louis
LoPiccolo, Vincent J., St. Louis
LoPiccolo, Vincent J., Jr., St. Louis
Lord, Richard E., St. Louis
Lorenc, Ernest, Springfield
Lorenzo, Edilberto B., Kansas City
Loriga, Martin S., St. Louis
Lotito, Carlos A., Kansas City
Lottes, James O., St. Louis
Loughead, John R., Poplar Bluff
Loutzenhiser, James K., Kansas City
Lovett, Robert L., Springfield
Lovinggood, Thomas A., Cape Girardeau
Lowe, Alvin L., Sedalia
Lowe, Horace A., Jr., Springfield
Lowell, Paul, Kansas City
Lowenstein, Paul S., St. Louis
Lowther, Gerald S., Chesterfield
Loyd, Earl L., Holts Summit
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Lucido, Joseph L., St. Louis
Lucke, Eugene M., Hannibal
Luckenbill, Paul T., Plattsburg
Luedde, Philip S., St. Louis
Luehrs, Robert O., St. Louis
Lugo, Samuel, St. Louis
Luh, Andrew, St. Louis
Lukens, John N., Jr., Boston, Mass.
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Lum, Jon Tek, St. Louis
Lund, Herluf G., St. Louis
Lund, Robert H., Clayton
Lundgren, Fred H., Jr., Kansas City
Lurie, Harold H., Springfield
Lusk, Charles A., Jr., Butler
Luther, George A., St. Louis
Lutkewitte, Joseph F., Ste. Genevieve
Lutz, Martin H., St. Louis
Lyddon, Harold R., Jr., Kansas City
Lyle, Robert R., Versailles
Lyman, Edward H., St. Louis
Lynxwiler, Chester P., St. Louis
Lyskowski, Maria, St. Louis
Lyss, Carl, St. Louis
Lyss, Stanley B., University City
Lyttle, Garnet C., St. Louis
Lytton, George J., Kansas City

Mc

McAdam, Charles R., St. Louis
McAfee, C. Alan, St. Louis
McAfee, R. Gordon, Kansas City
McAlhany, Howard J., Springfield
McAlister, William H., St. Louis
McArtor, Thomas R., Browning
McBurney, Charles A., Slater
McCaffree, Mary K., Jefferson City
McCall, Edwin L., Kimberling City
McCalla, John P., Kansas City
McCallister, Ben D., Kansas City
McCann, Louis P., Nevada
McCanse, Andrew, Kansas City
McCarroll, H. Relton, Jr., St. Louis
McCarthy, John M., St. Louis
McCarthy, Thomas D., Ferguson
McCaughan, John M., St. Louis
McClanahan, Robert C., Kansas City
McCloskey, R. Bruce, St. Louis
McClure, David N., St. Louis
McClure, James N., Jr., St. Louis
McCool, James F., Jr., St. Louis
McCool, Stanley G., St. Louis
McConchie, James E., Independence
McCord, E. Scott, Columbia
McCorkle, E. Lee, Marshall
McCormick, James E., Kansas City
McCown, Allan H., Kirkwood
McCoy, Donald L., Marshall
McCoy, Frederick J., Kansas City
McCoy, Warren R., Caruthersville
McCracken, Samuel R., Excelsior Springs
McCraw, Doyle C., Bolivar
McCray, Glen M., Kansas City
McCubbin, Clarence R., Leawood, Kan.
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McCullough, Campbell C., Kansas City
McDaniel, John R., St. Joseph
McDermott, Alfred E., Perryville
McDonald, Eugene F., Jackson
McDonald, Wilbur P., St. Joseph
McDonnell, John F., Kansas City
McDonough, John, St. Louis
McElroy, Glenn L., Columbia
McFadden, Gene A., Waverly
McFadden, James F., Jr., St. Louis
McFadden, James F., Sr., St. Louis
McFarland, H. Richard, Kansas City
McFarland, Morris D., Kansas City
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McGinnis, William F., St. Louis
McGinty, Charles P., Cape Girardeau
McGonigle, James P., Joplin
McGuire, Thomas H., Kansas City
McHaney, John W., Jefferson City
McIntosh, Donald E., Kansas City
McIntyre, John D., Kansas City
McKaskle, Clarence W., Caruthersville
McKee, Howard B., Joplin
McKee, Oliver A., Kirkwood
McKee, Wallace P., Kansas City
McKinney, Joseph K., St. Louis
McKinsey, John J., Springfield
McKnelly, William V., Jefferson City
McLain, Bobby M., Poplar Bluff
McLane, Jerry F., Poplar Bluff
McLaughlin, Kathleen, St. Louis
McLean, Harry A., St. Louis
McLean, Royal C., St. Louis
McLeod, John, Kansas City
McMillan, Thomas E., Kansas City
McMurray, Herbert C., Manchester
McNalley, Frank P., Clayton
McNalley, Michael, St. Louis
McNamara, John J., Richmond Heights
McNeel, Lee A., Jr., Greenfield
McNutt, Theodore L., Kansas City
McPhee, William R., Kansas City
McPheeters, James W., Poplar Bluff
McPike, Lloyd H., Joplin
McQueen, Samuel, St. Louis
McSwiney, John G., St. Louis
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M

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MacBryde, Cyril M., St. Louis
Maccubbin, Don A., Kansas City
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Macdonald, William C., St. Louis
Macdonnell, Thomas M., Marshfield
MacGee, Edwin E., Kansas City
Machek, Otakar, St. Louis
MacInnis, Florence E., Kansas City
MacLaughlin, James C., Joplin
MacNaughton, Ralph E., Kansas City
MacNaughton, Robert A., Leawood, Kan.
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Macnish, James M., St. Louis
Macon, William L., Jr., St. Louis
Maddox, Albert R., Sedalia
Maddox, John D., Joplin
Maddux, William P., Springfield
Madrid, Dominador, St. Louis
Magaletta, George E., Cape Girardeau
Magee, Robert L., El Dorado Springs
Magee, William E., St. Louis
Magidson, Joseph, St. Louis
Magill, Joseph S., Milan
Maginn, R. Reilly, St. Louis
Maginn, Richard L., St. Joseph
Magness, Guy N., University City
Magness, William C., Branson
Magrinat, Gaston, Miami, Fla.
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Mahe, George A., St. Louis
Maher, Robert W., Springfield
Maher, Thomas F., St. Louis
Maizus, Saul H., St. Louis
Maloney, Robert M., St. Louis
Maminta, Napoleon S., Chesterfield
Manalo, Gil B., Jr., Festus
Manansala, Antonio Q., St. Louis
Mandler, George, Chillicothe
Manganaro, Frank J., St. Louis
Mangels, Kenneth A., Independence
Mangelsdorf, Thomas K., St. Louis
Manion, Peter J., St. Louis
Manley, Charles B., Jr., St. Louis
Mann, James K., Hannibal
Mansur, Edward E., Stuart, Fla.
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Mantell, Jack M., Springfield
Mantz, Frank A., Kansas City
Manuel, Louis C., Kansas City
Maple, Francis M., Springfield
Maranan, D. L., Arnold
Maravilla, Levy M., St. Louis
Marban, Manuel I., St. Louis
Marco, Philip J., Columbia
Marcus, Morris D., St. Louis
Mardini, Edward E., Bonne Terre
Margolis, Richard M., St. Louis

Marienfeld, Carl J., Columbia
Markel, Arthur D., Poplar Bluff
Markel, Larry G., Kansas City
Marks, Mark M., Kansas City
Marmor, William A., St. Louis
Mars, Hartley F., Forsyth
Marsh, Alice, Pleasant Hill
Marshall, Cameron F., Shawnee Mission, Kan.
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Marshall, William G., Glasgow
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Martel, Dominique, St. Louis
Martin, Andrew D., Sikeston
Martin, Clarence A., Joplin
Martin, Clyde V., Kansas City
Martin, Daniel J., St. Louis
Martin, Forrest L., Nevada
Martin, Frederick W., Jr., St. Louis
Martin, J. Barlow, St. Louis
Martin, James David, Springfield
Martin, James M., Kirkwood
Martin, John N., St. Joseph
Martin, Maynard W., Houston, Tex.
(Member St. Louis Medical Society)
Martin, Richard H., Columbia
Martin, W. Joe, Louisiana
Martz, John C., St. Louis
Mason, Wayne E., Kansas City
Massie, Edward, St. Louis
Masters, William H., St. Louis
Masterson, Byron J., Kansas City
Masucci, Joseph M., Kansas City
Matteson, Frank B., Grant City
Matthews, John G., St. Louis
Matthews, John I., Jefferson City
Mattis, Robert D., Clayton
Maughs, Sydney B., St. Louis
Max, Paul F., St. Louis
Maxey, Hugh W., Quincy, Ill.
(Member Cole County Medical Society)
Maxson, T. Reed, Warrensburg
Maxwell, Richard W., St. Louis
May, Albert L., Jr., Poplar Bluff
May, Mark, St. Louis
Mayer, John H., Jr., Kansas City
Mayer, John H., III, Kansas City
Mayer, Robert A., St. Louis
Mayer, William D., Columbia
Mayfield, James L., Crystal City
Mays, Frank G., Washington
Mazdai, Abouzarjomehr, St. Louis
Meador, James R., St. Louis
Medina-Lorenzo, Remedios, Kansas City
Medler, Francis J., St. Louis
Medler, John F., St. Louis
Medlicott, William J., Kansas City
Medrano, Crescenciano A., St. Louis
Medrano, Lina Ebro, St. Louis
Meegan, Robert J., Kansas City
Mehan, Donald J., St. Louis
Mehra, Ravinder B., St. Louis
Mehra, Usha, St. Louis
Meier, Francis X., Jefferson City
Meinberg, William H., St. Louis
Meiners, Paul N., St. Louis
Meiners, Theodore M., St. Louis
Meinershagen, Charles W., Jefferson City
Mejia, Hugo, St. Louis
Melgaard, S. Ross, Kansas City
Melick, William F., St. Louis
Mell, Roger L., St. Louis
Menchetti, Don E., Springfield
Mendelsohn, Robert S., St. Louis
Mendelson, David F., St. Louis
Mendez, Manuel M., St. Louis
Menendez, Manuel F., Ballwin
Menendez, Silvana, Ballwin
Mendonsa, Lawrence E., St. Louis
Meneses, Orlando G., St. Louis
Menne, Marvin G., Ironton
Merenda, Sam J., St. Louis
Merideth, Mary Jane, Cassville
Meriwether, Don R., Mission, Kan.
(Member Jackson County Medical Society)
Merklin, Anton L., St. Louis
Merrims, Theodore, St. Louis
Merritt, Burch A., St. Louis
Merveille, Octave C., Kansas City
Merz, Jean J., Creve Coeur
Mestres, Hugh M., St. Louis
Metz, Charles O., St. Louis
Metzgar, Marshall T., Columbia
Metzl, Kurt, Kansas City
Meyer, Herman M., University City
Meyer, James E., Manchester
Meyer, Jay, Clayton
Meyer, John S., St. Louis
Meyer, Melvin E., St. Louis
Meyer, Paul W., Kansas City
Meyers, Elsie F., St. Louis
Meyers, Harold L., Kansas City
Meyers, John B., Clayton
Meyers, Robert W., St. Louis
Meyers, Rosellen E., Cedar Vale, Kan.
(Member Ozarks Medical Society)
Mezera, Raymond A., St. Louis
Michael, Harvey R., Springfield
Michael, Kenneth D., St. Louis
Michael, Vernon E., St. Louis
Michaelree, John F., St. Louis
Miciano, Ruel T., Kansas City
Middleton, Jerry N., St. Louis
Middleton, John W., Louisiana
Mier, Thomas M., St. Louis
Milder, Benjamin, St. Louis
Miles, George O., Kansas City
Miles, Glenn E., Louisiana
Miles, Paul W., St. Louis
Milgram, Byron A., Kansas City
Mill, William B., Jr., St. Louis
Millangue, Consolacion P., St. Louis
Millangue, Rafael M., St. Louis
Miller, Charles, Jr., Kirkwood
Miller, Clinton L., Lee's Summit
Miller, Clyde S., Waynesville
Miller, D. Herbert, Muskogee, Okla.
(Member Chariton-Macon-Monroe-Randolph County Medical Society)
Miller, David V., Poplar Bluff
Miller, Edward J., St. Louis
Miller, Geoffrey W., St. Louis
Miller, Gerald L., Kansas City
Miller, James E., St. Louis
Miller, James R., St. Louis
Miller, Jule P., Jr., St. Louis
Miller, Leroy J., Columbia
Miller, Max I., Kansas City
Miller, Norman C., St. Louis
Miller, Richard B., St. Charles
Miller, Robert N., St. Louis
Miller, Wilson H., Kansas City
Millikan, Larry E., Columbia
Milne, J. L., Springfield
Milster, Clyde R., St. Louis
Miltenberger, Paul C., Kennett
Minnigerode, Lana, Columbia
Minnigerode, Turner L., Columbia
Minnihan, Robert W., Chesterfield
Minton, Robert S., Forest City
Mirbaha, Mitchell M., St. Louis
Mishkin, Marvin R., St. Louis
Miskovsky, Emil F., St. Louis
Missey, Wilburn C., Jr., St. Louis
Mitchell, Andrew D., Kansas City
Mitchell, Eugene, St. Louis
Mitchell, Franklin L., Columbia
Mitchell, John D., Kansas City
Mitchell, Lynn D., Columbia
Mitchell, Robert H., Kansas City
Mitchell, Roy E., Salem
Mitchell, Thomas J., St. Clair
Mitra, Nirmal K., Kansas City
Mixson, William C., Kansas City
Moellenhoff, Robert W., Washington
Moen, Berwyn H., St. Joseph
Molden, Charles A., St. Louis
Momtazee, Sam, St. Louis
Monafo, William W., Jr., St. Louis
Monat, Seymour, St. Louis
Monroe, C. Dean, Columbia
Montani, Charles, St. Louis
Montello, Samuel A., Kansas City
Montes, Arturo C., St. Louis
Montes-de-Oca, Julio, St. Louis
Montgomery, Austin F., St. Louis
Montgomery, James G., Kansas City
Moon, Thomas R., Jr., St. Louis
Mooney, Justin L., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Mooney, Marcel L., Kansas City
Moore, Allen H., Jr., Branson
Moore, Alva, St. Louis
Moore, Carl V., St. Louis
Moore, De Armond, Springfield
Moore, Harry G., St. Louis
Moore, Harry G., Jr., St. Louis
Moore, Robert A., Kansas City
Moore, Walter L., St. Louis
Moore, William E., Normandy
Moranville, Benedict A., Columbia
Moranz, John W., St. Louis
Moreano, Armando H., Kansas City
Morehead, William E., Malden
Morest, F. Stanley, Cape Girardeau
(Member Jackson County Medical Society)
Morgan, David B., Kansas City
Morgan, Harry C., St. Louis
Morgan, Marvin W., Poplar Bluff
Morgan, Philip E., Columbia
Morgan, Stephan S., St. Louis
Morgan, Troy O., Jr., Albany
Morgan, W. Thomas, Jr., West Plains
Morley, Louise A., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Moroney, Jean M., Kansas City
Morrin, Kevin C., St. Louis
Morris, Alan H., St. Louis
Morris, Harvey E., St. Louis
Morris, Joseph H., Jr., Kansas City
Morris, Mary E., St. Louis
Morrison, Arlen, St. Louis
Morrison, Donald H., Kansas City
Morrison, T. A., Aurora
Morse, John P., St. Joseph
Morse, Marvin, St. Joseph
Mortensen, Frede, St. Louis
Morton, Paul C., Springfield
Mosbacher, Hugh E., Independence
Mosby, Larry Dee, Columbia
Moseley, F. Thomas, Springfield
Moseley, Otis O., Osage Beach
Moses, Robert A., St. Louis
Moss, Paul, Kansas City
Mosser, Robert S., Overland Park, Kan.
(Member Jackson County Medical Society)
Mothershead, John L., St. Joseph
Motzel, Albert J., St. Louis
Mountjoy, Grace S., St. Louis
Mowrer, Marie O., St. Louis
Mowrey, William O., Jennings
Muckerman, Richard I. C., St. Louis
Mudd, J. Gerard, St. Louis
Muelheims, Gerhard H., St. Louis
Mueller, Adolph R., Jr., Joplin
Mueller, Clarence E., St. Louis
Mueller, Joseph A., St. Louis
Mueller, Martin J., Kansas City
Mueller, Morris A., St. Louis
Mueller, Robert, St. Louis
Mueller, Robert J., St. Louis
Mueller, Wilbur K., St. Louis
Muench, Albert H., St. Joseph
Muenster, Vincent P., St. Charles
Muether, Raymond O., St. Louis
Muhm, Harvard Yale, St. Charles
Mullarky, Wilbur A., Chesterfield
Mullen, Jack, Bonne Terre
Mullen, Leo M., Kansas City
Mulligan, Leo V., St. Louis
Mullinax, Orr, St. Joseph
Mullins, Bernard L., N. Kansas City
Mullins, John E., St. Louis
Mundy, Homer F., Bakersfield, Calif.
(Member Buchanan County Medical Society)
Mundy, William L., Kansas City
Munsch, Girard A., St. Louis
Murdock, Nathaniel H., St. Louis
Murney, Joseph A., Washington
Murphy, Bernard L., Hannibal
Murphy, George E., St. Louis
Murphy, James J., Kansas City
Murphy, James P., St. Louis
Murphy, John C., St. Louis
Murphy, Paul, St. Louis
Murphy, Robert J., Kansas City
Murray, Wilber L., Kansas City
Muschany, Norman K., St. Louis
Musgrave, David E., Excelsior Springs
Muth, Robert G., Kansas City
Myers, Ivan T., St. Louis
Myers, James M., Rolla
Myers, John S., Kansas City
Myers, Robert M., Kansas City

N

Nahm, Chung Chick, St. Louis
Naime, Mansour J., Kansas City
Nakada, James R., St. Louis
Napper, Marvin L., Springfield
Naryka, Joseph J., St. Louis
Nash, Helen E., St. Louis
Neal, M. Pinson, Columbia
Near, David M., Florissant
Negrete, Abelardo, Kansas City
Neilson, Arthur W., St. Louis
Nelson, Bentley A., Kansas City
Nelson, J. Roger, Kirkwood
Nelson, James S., St. Louis
Nemec, Stanley S., St. Louis
Ness, Carl K., St. Joseph
Nesselrode, John H., Independence
Nester, Charles A., St. Louis
Neu, Leo T., Jr., Springfield
Neubeiser, Ben L., St. Charles
Neumann, James W., Kansas City
Neun, William F., St. Louis
Newcomb, Arthur D., Fredericktown
Newman, Matthew, St. Louis
Newman, Percy, St. Louis
Newman, Robert L., Kansas City
Newmark, Leonard N., St. Louis
Newport, Gerald, St. Louis
Newton, Gordon, St. Louis

Newton, William T., St. Louis
Nicholson, Ralph L., Springfield
Nickel, James F., St. Louis
Nickels, Mathew L., Louisiana
Nickson, Charles E., Jr., Independence
Nicolai, Charles H., St. Louis
Niedermeyer, Edward L., Tarkio
Niedermeyer, George J., St. Louis
Niesen, Frank J., St. Louis
Nieuwenhuizen, Maarten, Columbia
Nigh, Charles A., St. Louis
Nigro, E. Robert, Shawnee Mission, Kan. (Member Jackson County Medical Society)
Nigro, Joseph A., Kansas City
Nishi, Toshio, St. Louis
Nixon, Edward E., Gallatin
Noah, Joseph W., St. Louis
Noback, Richardson K., Kansas City
Nolan, Charles J., St. Louis
Nolan, Robert B., Kansas City
Noller, Henry W., Overland
Nolph, Georgia B., Columbia
Noltensmeyer, Milton N., Kansas City
Nomura, Roy M. Y., St. Louis
Norland, Charles C., St. Louis
Nouhan, Joseph G., Jr., St. Louis
Nouri, Hassan, St. Louis
Novak, Edward J., Kansas City
Nuetzel, John A., St. Louis
Nunez, Maria M., St. Louis
Nunnelly, Gordon M., Cape Girardeau
Nussbaum, Paul B., Cape Girardeau
Nussbaum, Robert A., St. Louis
Nye, Robert S., St. Louis

O

Oakley, Margaret M., St. Louis
Obando, Francisco J., Troy
O'Bannon, Lon W., Jr., Florissant
Obermeyer, Charles G., St. Louis
O'Brien, Edward C., St. Louis
O'Brien, Harry F., Mexico
O'Brien, James A., Joplin
O'Brien, Liam, St. Joseph
O'Brien, Robert M., St. Louis
O'Connor, Robert J., Florissant
O'Connor, William B., St. Joseph
O'Donnell, Joseph V., St. Louis
O'Dowd, James A., St. Louis
Oehler, William F., Cape Girardeau
Oetter, Donald L., St. Louis
O'Farrell, Thomas P., Kansas City
Ogilvie, John H., Gravois Mills
Oglesby, Richard B., St. Louis
Ognyanov, V. F., St. Louis
Ogura, Joseph H., Ladue
O'Hearne, John J., Kansas City
Ohmoto, Masao, St. Louis
Ojascastro, Alejandro C., St. Louis
O'Keefe, Joseph D., St. Louis
O'Kell, Richard T., Kansas City
Okun, Edward, St. Louis
O'Leary, James L., St. Louis
Olive, George C., Neosho
Oliver, George A., Farmington
Olmsted, William H., St. Louis
Olney, John W., St. Louis
Olson, Elbert R., Springfield
Olson, Robert E., St. Louis
O'Malley, James F., Kansas City
O'Neal, Lawrence W., St. Louis
O'Neal, Patricia, St. Louis
O'Neil, James H., Kansas City
Onken, Henry D., St. Louis
Oppenheimer, Henry E., Clayton
Ordoukhanian, Tatool, St. Charles
O'Reilly, D. Elliott, St. Louis
Orenstein, Joseph M., St. Louis
Orgel, M. Norman, St. Louis
Orsay, Paul K., St. Louis
Orth, Oliver G., Columbia
Ortiguero, Leopoldo M., St. Louis
Ortillo, Amado P., St. Louis
Ortmeyer, Leroy F., St. Louis
Osborn, Retus W., III, Topeka, Kan. (Member Mineral Area County Medical Society)
Osborne, Jere O., Kansas City
Osbourn, Richard A., Fulton
Ossman, Julian A., Jefferson City
Ost, Mark D., Kansas City
Ostapowicz, Frank, St. Louis
O'Sullivan, Daniel F., St. Louis
O'Sullivan, George A., St. Louis
Ott, F. Thomas, St. Louis
Ott, Harold J., II, St. Louis
Ott, Harold J., Maplewood
Ottensmeyer, Charles D., St. Louis
Otto, Thomas G., Cape Girardeau
Ottolini, James L., Creve Coeur
Overend, Donald S., Springfield
Overesch, Harry B., Kansas City
Overholser, Milton D., Columbia
Owen, Robert F., St. Louis
Owens, Graham J., Kansas City
Owens, James L., Kansas City
Owens, John H., Sedalia
Owens, Richard L., Kansas City
Owens, Robert H., Kansas City
Ozar, Milton B., Kansas City
Ozenberger, Larry A., Plattsburg
Ozmat, Orhan, St. Louis

P

Packman, Robert C., St. Louis
Paddock, Charles S., Joplin
Padfield, Earl G., Jr., Kansas City
Padilla, Teresita C., St. Louis
Paez, Mauro A., St. Louis
Page, Jesse W., Sikeston
Paine, Robert, St. Louis
Painter, Andrew E., Portageville
Painter, Lattie B., Jr., Portageville
Pakula, Sidney, Kansas City
Palazzo, Frank A., St. Louis
Palcheff, Chris L., Springfield
Palenske, Robert L., Hornersville
Paletta, Francis X., St. Louis
Paletta, Theodore L., St. Louis
Pallett, Harold A., Kansas City
Pangilinan, Antonio G., Milwaukee, Wis. (Member St. Louis Medical Society)
Papp, Sandor D., Joplin
Pappalardo, Carlos, St. Louis
Parato, John M., St. Louis
Parelman, Allen G., Kansas City
Paris, William H., Normandy
Park, Duk Joe, St. Louis
Park, George M., St. Louis
Park, William I., Jr., Springfield
Parker, Arthur C., Jr., Poplar Bluff
Parker, Brent M., St. Louis
Parker, Hubert M., Kansas City
Parker, Robert H., Kansas City
Parker, Thomas W., University City
Parker, William, St. Louis
Parlato, George S., Springfield
Parsons, D. LeRoy, Cape Girardeau
Parsons, Eugene O., Stilwell, Kan. (Member Jackson County Medical Society)
Parsons, Richard P., St. Louis
Pascoe, James J., Nevada
Passanante, Bartholomew M., St. Louis
Patrick, Roman L., Jr., St. Louis
Patterson, Donald R., Joplin
Patterson, Grover S., Carthage
Pavlu, Robert R., Waverly
Pawol, S. E., St. Louis
Payne, David E., Columbia
Payne, John W., Columbia
Payne, Meredith J., St. Louis
Payne, Vaughn C., St. Louis
Pe, Romualdo L., Danville, Ill. (Member Buchanan County Medical Society)
Peake, Glenn T., St. Louis
Pearlman, Alan L., St. Louis
Pearman, Carl C., Columbia
Pearse, Roy W., Jr., Nevada
Pearson, Paul E., Kansas City
Peck, Chester R., Jr., Kennett
Peden, Burnet W., Clayton
Peden, James C., Jr., St. Louis
Peden, Joseph C., St. Louis
Peden, Joseph C., Jr., St. Louis
Pedersen, Harold J., St. Louis
Peebles, J. B., Jr., Kirkwood
Peete, Don C., Kansas City
Pelz, Mort D., St. Louis
Pena-Ramos, Abelardo, Hannibal
Pence, F. Wendell, Carthage
Pendell, Paul W., Rolla
Penner, Stanley, Kansas City
Penninger, William H., Springfield
Pennington, Francis E., St. Louis
Pennoyer, James, Webster Groves
Pentecost, Richard L., Kansas City
Pepper, Edward G., St. Louis
Pepper, Max, St. Louis
Perez, Blanca M., St. Louis
Perez, Carlos A., St. Louis
Perez, Raul A., St. Louis
Perez-Mesa, Carlos, Columbia
Perico, Carlos J., Kansas City
Perkins, David E., St. Louis
Perkoff, Gerald T., St. Louis
Perll, Maurice F., Kansas City
Perll, Rita D., Kansas City
Perna, Vincent P., St. Louis (Member St. Charles-Lincoln County Medical Society)
Pernoud, Flavius G., Jr., St. Louis
Pernoud, Michael F., St. Louis
Perry, H. Mitchell, St. Louis
Perry, Lawrence L., Jr., Kansas City
Perry, Ralph, Kansas City
Perry, William D., St. Louis
Petersen, Harold E., St. Joseph
Peterson, Bonita J., Kansas City
Peterson, Carl M., Kansas City
Peterson, Donald B., Fulton
Peterson, Frederick D., St. Louis
Peterson, George L., Kansas City
Peterson, Milton C., Sun City, Ariz. (Member Jackson County Medical Society)
Peterson, Stanley S., Springfield
Peterson, Walter R., Kansas City
Petry, Ezra L., Overland Park, Kan. (Member Jackson County Medical Society)
Pfefer, Leland U., Columbia
Pfeffer, Robert I., St. Joseph
Pfeifer, Oliver C., St. Louis
Pfuetze, Edwin L., Kansas City
Philip, Varkey, St. Louis
Phillips, Hanford, St. Louis
Phillips, John J., St. Louis
Phillips, William J., St. Louis
Philpott, Gordon W., St. Louis
Phipatanakul, Supote, St. Louis
Piccione, Leonard N., St. Louis
Pichardo, Javier, Farmington
Pickard, Clarence M., Columbia
Pickard, Nicholas S., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Pickens, E. Allen, St. Louis (Member West Central Missouri Medical Society)
Piepergerdes, Larry G., Kansas City
Pierron, John B., Kansas City
Pifer, Lawrence H., St. Joseph
Pileggi, Felix A., N. Kansas City
Pilla, Lawrence A., St. Louis
Pimentel, Esperanza, St. Louis
Pineda, Hector O., St. Louis
Pingelton, William B., Columbia
Pinkstaff, Thomas H., Sikeston
Pinsker, Oscar T., Kansas City
Piper, August T., St. Louis
Piper, Donald K., Kansas City
Pipes, Keith E., St. Louis
Pipkin, Garrett, Clinton (Member Jackson County Medical Society)
Pitsinger, Nolan B., St. Louis
Pitts, Ferris N., Jr., St. Louis
Pizzimbono, Carlos A., St. Louis
Platt, William R., Clayton
Platz, John H., Carrollton
Plax, Steven, St. Louis
Plesons, John D., St. Louis
Plowman, Edward M., Hannibal
Plumpe, W. Tupper, St. Louis
Plunkett, Littleton J., Poplar Bluff
Podos, Steven M., St. Louis
Podrecca, Guido I., Springfield
Poggemeier, William H., Jr., St. Charles
Politte, Lenard L., Columbia
Polk, George M., Sun City, Ariz. (Member Jackson County Medical Society)
Pollack, Maxwell A., Chesterfield
Pollock, Leo H., Kansas City
Pontillas, Job B., Perryville
Poonawala, Huseni E., Kansas City
Poor, Carl W., Neosho
Pope, Charles H., Jr., Independence
Popp, Carl G., Sikeston
Porporis, Arthur A., St. Louis
Porter, Louis, Kansas City
Porter, Russell C., Long Beach, Calif. (Member Clay County Medical Society)
Portugal, Antonio Q., St. Louis
Portuondo, Bonaventura C., St. Louis
Post, John P., Washington
Post, John R., St. Louis
Post, Stephen L., St. Louis
Post, Winfred L., Joplin
Potashnick, Robert, St. Louis
Potchen, E. James, St. Louis
Potter, Caryl A., Jr., St. Joseph
Potter, Lee G., Kansas City
Potter, Reese H., St. Louis
Potts, Donald A., Independence
Powell, Alan E., Independence
Powell, Charles B., Florissant
Powell, Earl A., St. Louis
Powell, Edwin M., Springfield
Powell, Nelson E., Kansas City
Powell, Robert G., Joplin
Powers, John M., Independence
Powers, Pierce W., St. Louis
Powers, William E., St. Louis
Prachasitthisakdi, Mopachai, St. Louis
Pranger, Sylvester H., St. Louis
Prater, Bill G., Springfield
Pratt, Lindsay L., St. Louis

Prensky, Arthur L., St. Louis
Presant, Cary A., St. Louis
Presnell, Cleitus A., St. Louis
Preston, Albert, Jr., Kansas City
Price, Kenneth C., St. Louis
Prieto-Basa, Nenita, St. Louis
Printz, Joseph H., Kansas City
Printz, Otto J., Kansas City
Probst, Raymond E., St. Louis
Probstein, Jacob G., St. Louis
Proctor, Donald C., Sedalia
Prokop, Joseph R., St. Joseph
Prophete, B., St. Louis
Proskey, Vincent J., St. Louis
Pruett, Burchard S., St. Louis
Pruett, Hubert S., St. Louis
Pruett, Paul L., Springfield
Pu, Pin H., Kennett
Pucci, Gregory L., Kansas City
Pugeda, Faustino V., Florissant
Pugh, Daniel D., St. Louis
Pugh, Reginald P., Columbia
Pugh, Richard G., Independence
Purcell, Harry K., St. Louis
Purcell, Paul L., Smithville
(Member Marion-Ralls-Shelby County Medical Society)
Pyne, Herbert S., St. Louis
Pyron, Katharine A., Kansas City

Q

Quer, Erich A., Kansas City
Quick, Richard T., St. Louis
Quinn, Paul S., Springfield
Quistgard, Paul C., Hollister

R

Rabin, Erwin R., St. Louis
Racadio, Severo M., Kirkwood
Rachlin, Maxwell, St. Louis
Rader, Ada B., Kansas City
Rader, Edward S., St. Louis
Rader, George B., St. Louis
Radke, John D., St. Louis
Ragland, John E., Ballwin
Ragsdale, George M., Paris
Rahman, Moududur, St. Louis
Raich, Robert A., Kansas City
Raines, Oney C., III, Kansas City
Rainey, Robert, St. Louis
Rainwater, Elmer H., Springfield
Rall, Kenneth L., Columbia
Ramey, Ehret O., Kansas City
Ramirez, Ricardo M., Poplar Bluff
Ramirez, Samuel G., St. Louis
Ramos, Americo G., Kansas City
Ramsey, Robert H., Florissant
Randolph, Bernard C., St. Louis
Rankin, Diane, St. Louis
Rannie, Paul R., Independence
Rao, Carlo, St. Louis
Raper, Charles A., Poplar Bluff
Raphel, Jose, St. Joseph
Rapp, Earl L., Hannibal
Rapp, Harold B., Cape Girardeau
Rappold, H. O., St. Ann
Rauch, James E., Kansas City
Ravindranathan, P. G., Marion, Ill.
(Member St. Louis Medical Society)
Rawlins, Fred E., Cape Girardeau
Raybuck, Harry E., St. Louis
Raynor, Richard, Marshall
Raza, Syed A., St. Louis
Recano, Ricardo Q., St. Louis
Rector, Joe L., Jr., Kansas City
Reddin, Jack L., Independence
Reddin, Patrick C., Columbia
Reddy, Sarvotham K., Poplar Bluff
Redington, James C., Jr., Clayton
Redmond, William, St. Joseph
Reed, G. H., Osceola
Reed, Jonathan R., St. Louis
Reed, William A., Kansas City
Reeder, Charles C., Smithville
Reese, A. Victor, St. Louis
Reh, Edward P., St. Louis
Rhem, Ralph, Dexter
Reich, Harry A., St. Louis
Reichert, M. Cecelia, St. Louis
Reiches, Aaron J., St. Louis
Reid, James A., Marshall
Reider, Richard A., Warson Woods
Reilly, Pierce J., St. Louis
Reimer, Donald R., Topeka, Kan.
(Member Cape Girardeau County Medical Society)
Reineck, John A., St. Louis
Reinhard, Edward H., St. Louis
Reinhardt, George R., Kansas City
Reisa, Ronald C., St. Charles
Reisler, David M., St. Louis
Reiss, Jeanne E. L., Kansas City
Reister, Dorothy D., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Reister, Philip D., Kansas City
Reitman, Stanley, St. Louis
Rendleman, David D., St. Louis
Rendleman, George F., St. Louis
Rendleman, George, Jr., St. Louis
Rennard, Marvin, St. Louis
Repaso, Florante A., Hazelwood
Repp, Theodore J., St. Louis
Reuter, Louis A., St. Louis
Revare, Paul, Kansas City
Reyes, Jose T., St. Louis
Reyes, Luis A., St. Louis
Reyes, Rosendo A., St. Louis
Reynolds, Clarence C., Kansas City
Reynolds, Fred, St. Louis
Reynolds, Garland A., Cape Girardeau
Reynolds, James A., Warson Woods
Reynolds, M. Wayne, Warrensburg
Rhee, Young Wung, St. Louis
Rhoades, Arthur B., Lenexa, Kan.
(Member Jackson County Medical Society)
Ricci, Walter F., Kansas City
Rice, Carl E., Crystal City
Rice, Ronald, St. Charles
Richany, Shafik F., Kansas City
Richards, Frank O., St. Louis
Richardson, George A., Union
Richardson, Marion W., Kansas City
Richardson, Thomas F., St. Louis
Richardson, William R., Union
Richman, Elmer, Chesterfield
Richmond, Michael R., Florissant
Richter, William B., Stockton
Riddell, Richard V., St. Joseph
Ridenhour, C. E. Gene, Columbia
Ridgeway, William G., St. Louis
Ridings, Harold D., Cape Girardeau
Ridzon, Thomas J., St. Charles
Riekhof, Paul L., Kansas City, Kan.
(Member Jackson County Medical Society)
Ries, Douglas A., St. Louis
Riffel, Gordon W., Bourbon
Riggio, Salvatore N., St. Louis
Rigney, Levi M., Springfield
Rikli, Arthur E., Columbia
Riley, Charles T., Richmond
Riley, John J., St. Louis
Riley, Joseph P., Jr., Parthenon, Ark.
(Member Jackson County Medical Society)
Riller, Lowell E., Kansas City
Rinck, Edward C., Nevada
Rinck, William E., Kansas City
Ring, Edward M., St. Louis
Rink, Richard A., Columbia
Rinker, Carl T., Jr., Springfield
(Member Boone County Medical Society)
Rippey, John H., Kansas City
Ritchie, Frances R., St. Louis
Ritter, C. John, Cape Girardeau
Ritter, Hubert A., St. Louis
Ritter, Paul J., St. Louis
Ritter, Raymond A., Cape Girardeau
Ritter, Raymond A., Jr., Cape Girardeau
Ritterbusch, James K., Fulton
Ritzinger, Frederick R., Frontenac
Rizzo, Adolfo E., St. Louis
Roach, Edward A., St. Charles
Robb, Harold Phillip, Jefferson City
Robben, G. Garry, St. Louis
Roberts, Grosvenor G., Kansas City
Roberts, Harold K., Clayton
Roberts, Harold M., Kansas City
Roberts, Howard H., Joplin
Roberts, John P., Kirkwood
Roberts, John R., St. Louis
Roberts, Paul A., Sweet Springs
Roberts, Phyllis Grant, St. Joseph
Robertson, Frank G., St. Louis
Robertson, William D., Poplar Bluff
Robertson, William D., Kansas City
Robichaux, Eugene B., Excelsior Springs
Robinett, Wade V., Kansas City
Robins, Eli, St. Louis
Robinson, Arthur W., Kansas City
Robinson, Edith C., St. Louis
Robinson, E. Kip, Kansas City
Robinson, Gary Lewis, Springfield
Robinson, George G., Humansville
Robinson, G. Wilse, Jr., Kansas City
Robinson, Robert R., Jr., Columbia
Robinson, Van M., Kansas City
Robinson, William J., Kansas City
Robison, James T., Jr., Kansas City
Roblee, Melvin A., St. Louis
Roche, Maurice B., St. Louis
Rodes, Ned D., Mexico
Rodgers, Elrie P., Columbia
Rodgers, George H., Overland Park, Kan.
(Member Jackson County Medical Society)
Rodgers, Samuel U., Kansas City
Rodriguez, Gregorio L., Charleston
Rodriguez, Luis M., St. Louis
Rodriquez, Rolando A., Kansas City
Rodriguez, Ubaldo R., St. Louis
Roehrs, Marvin E., Marshall
Rofail, Amin A., Kansas City
Rogers, Hunter Bryan, St. Louis
Rogers, John A., St. Louis
Rogers, John T., St. Joseph
Rogers, Robert L., Kansas City
Rohlfing, Edwin H., St. Louis
Rohlfing, Walter H., St. Louis
Roller, Merrill J., Hannibal
Romero, Richard N., Crystal City
Ronald, Douglas C., Butler
Roos, Albert, St. Louis
Rogers, Cyril H., St. Louis
Roper, Charles L., St. Louis
Roper, Stanley D., Ozark
Rose, Charles W., Kansas City
Rose, Dalton K., St. Louis
Rosecan, Marvin, St. Louis
*Rosell, Louis V., St. Louis
Rosen, Max, Springfield
Rosenbaum, Harry D., St. Louis
Rosenbaum, Herbert E., St. Louis
Rosenfeld, Henry, St. Louis
Rosenholtz, Mitchell J., Columbia
Rosenthal, Irwin I., St. Joseph
Rosenthal, Ronald E., St. Louis
Ross, Gilbert, Jr., Columbia
Rost, William B., St. Joseph
Roter, Alexander M., St. Charles
Roth, Alfred D., Kansas City
Roth, John J., St. Louis
Rother, Paul H., St. Charles
Rothman, David, St. Louis
Rothweiler, Robert J., St. Louis
Roufa, Joseph F., St. Louis
Roulhac, George E., St. Louis
Rouse, Ernest T., St. Louis
Roxas, Generoso P., St. Charles
(Member St. Louis Medical Society)
Roy, Joseph A., Jennings
Royce, James J., Sarcoxie
Royce, Robert K., St. Louis
Royse, Roy P., Sullivan
Royston, Grandison D., Address unknown
(Member St. Louis Medical Society)
Rozen, Jay I., Kansas City
Rubenstein, Melvin, St. Louis
Rubin, Harvey P., Kansas City
Rubin, Robert, St. Louis
Rubin, Sidney, Kansas City
Rubnitz, Leon H., Kansas City
Rudi, Herbert J., St. Louis
Rufe, John R., Kansas City
Ruff, T. Eugene, Poplar Bluff
Ruhling, Rudy, St. Louis
Runez, Manuel W., St. Louis
Rusan, Thomas E., St. Louis
Russell, Barbara E., Rolla
Russell, Earl D., Springfield
Russell, Garth, Columbia
Russell, Herman E., Berkeley
Russell, James L., Kansas City
Russell, Joseph P., Jefferson City
Russell, Robert K., Raytown
Rutledge, John F., Festus
Rutledge, William J., Campbell
Ryan, John B., Washington
Ryan, John H., St. Joseph
Ryan, John J., Clayton
Ryan, Robert E., St. Louis
Ryan, Thomas J., Jefferson City

S

St. John, Thomas C., St. Louis
Sabates, Felix N., Kansas City
Sabet, Abdollah A., Clayton
Sachar, Leo A., St. Louis
Safdar, Shabbir, St. Louis
Saferstein, Lester, Kansas City
Saghir, Marcel, St. Louis
Saha, Nitai C., Ballwin
Saha, Sudha R., Ballwin
Sala, Jose M., Springfield
Saladino, Anthony, Shawnee Mission, Kan.
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Salanga, P. B., St. Louis
Sale, Llewellyn, Jr., St. Louis
Salmon, Mickey L., St. Louis
Sammons, Harry C., St. Louis
Samuelson, Edward A., Kansas City
Sanchez, Abelardo B., St. Louis
Sanchez, Salvador Valera, St. Joseph
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Sanders, George E., Excelsior Springs
Sanders, Harmon U., Jr., Greenwood, Miss.
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Sanders, Jack S., Jefferson City
Sanders, Robert D., St. Louis
Sanders, Theodore E., St. Louis

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Sandow, Theodore, Jr., Kansas City
Sanford, Edward F., St. Louis
Santanello, William M., St. Louis
Santillano, Antonio B., St. Louis
Santoro, Carlos G., Kansas City
Sargent, Alden P., Sikeston
Sargent, John P., Sikeston
Sarma, Kurella T., St. Louis
Sasano, Joseph R., Jr., Kansas City
Sasser, William F., St. Louis
Sato, George, St. Louis
Sauer, Donald C., St. Louis
Sauer, Gordon C., Kansas City
Sauer, Paul E., Springfield
Sauer, W. Nicholas, St. Louis
Sauvage, Jacques, St. Louis
Savci, Hasan D., St. Louis
Sawyer, Floyd E., Kansas City
Sawyer, James, St. Louis
Scales, Margaret B., Kansas City
Scanlon, Robert C., Springfield
Schaan, Robert C., St. Louis
Schaef, Mary L., St. Louis
Schaefer, George J., St. Louis
Schaefer, Glennon S., Jr., St. Louis
Schaeffer, Edward M., Springfield
Schaerer, Jacques P., St. Louis
Schaerrer, William C., Kansas City
Schaper, Ernest H., St. Louis
Schattyn, Martyn, St. Louis
Schechter, Samuel E., St. Louis
Scheele, Paul M., St. Louis
Scheer, George E., St. Louis
Scheff, Harold, St. Louis
Scheibe, Robert G., St. Louis
Schengber, John S., St. Louis
Schertz, Truman B., N. Kansas City
Scheuber, Charles, Columbia
Schewe, Elmer J., Jr., Columbia
Schierman, William D., St. Louis
Schiffmacher, Jack E., Kansas City
Schillie, Gene A., Kansas City
Schlansky, Seymour M., St. Louis
Schluer, Elmer P., St. Louis
Schmidt, C. Robert, Kansas City
Schmidt, Charles A., Gerald
Schmidt, Dennis A., St. Louis
Schmidt, Edwin H., St. Louis
Schmidt, Edmund M., St. Louis
Schmidt, Herbert J., Joplin
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Schmiemeier, Roy H., St. Louis
Schneider, Sam, St. Louis
Schneider, Thomas A., St. Charles
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Schoeck, Albert F., St. Louis
Schoedinger, George R., III, St. Louis
Schoentag, John S., St. Louis
Schokker, Johannes, Jefferson City
Schoolman, Arnold, Kansas City
Schopp, Alvin C., St. Louis
Schottman, Gerhard W., Jr., Kansas City
Schranck, Charles R., St. Louis
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Schuessler, Wolfgang P., St. Louis
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Schulte, Gregory A., Joplin
Schultz, E. Robert, St. Louis
Schultz, Irwin, St. Louis
Schultz, Loraine E., Branson
Schultz, Robert V., Liberty
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Schwartz, Eugene J., Springfield
Schwartz, Frederick O., St. Louis
Schwartz, Henry G., St. Louis
Schwartz, Melvin M., St. Louis
Schwartzman, Bernard, St. Louis
Schwarz, Luis, Clayton
Schweiss, John F., St. Louis
Sciortino, Gaspare, St. Louis
Sciortino, John S., St. Louis
Scopelite, Joseph A., St. Louis
Scorse, Sidney W., Joplin
Scott, E. David, Jefferson City
Scott, Elwin P., St. Louis
Scott, Horace W., St. Louis
Seabaugh, Loy R., Cape Girardeau
Seabaugh, Ottis D., Webster Groves
Seabaugh, William O. L., Cape Girardeau
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Sennott, John S., Jefferson City
Senor, Samuel E., St. Joseph
Senturia, Ben H., St. Louis
Senturia, Hyman R., St. Louis
Sertl, James F., Manchester
Sertl, John D., St. Louis
Sessions, Donald G., St. Louis
Sevastianos, Aristides E., St. Louis
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Sexton, Elmer E., St. Louis
Shackelford, Horace H., St. Louis
Shackter, Bruce I., Springfield
Shah, Anwar, St. Louis
Shahan, Philip T., St. Louis
Shaikun, Gerald L., Chesterfield
Shalet, Malcolm F., Kansas City
Shanahan, Mary Patricia, Joplin
Shanahan, Phil J., St. Louis
Shane, Ramon A., Springfield
Shaner, John F., St. Louis
Shank, Robert E., St. Louis
Shapiro, Herbert N., St. Louis
Shapiro, Lazare M., Kansas City
Shapleigh, John B., St. Louis
Sharp, Austin R., St. Louis
Shatz, Burton A., St. Louis
Shaw, Edward J., St. Louis
Shaw, Robert F., Liberty
Shaw, William J., Fayette
Shaw, William J., Jr., Fayette
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Shechter, Nathan, Kansas City
Sheffield, William, St. Louis
Shelden, Russell D., Kansas City
Shell, William C., Sikeston
Shelton, Earl W., St. Louis
Shelton, Edward O., Eldon
Shen, Jerome T. Y., St. Louis
Sheridan, Edmund R., St. Louis
Sherman, Laurence A., St. Louis
Sherwin, Charles S., St. Louis
Shevlin, Charles F., St. Joseph
Shieber, William, St. Louis
Shields, J. B., St. Louis
Shifrin, Alexander, Kansas City
Shireman, Kenneth L., Kansas City
Shirey, Arnold G., Hayti
Shively, John A., Columbia
Shobe, Frank O., St. Louis
Shockley, Clarence J., Kansas City
Shoss, Milton, Cape Girardeau
Shriver, Ronald G., Poplar Bluff
Shuey, Herbert H., Kansas City
Shull, George D., Jefferson City
Shuman, Joseph S., St. Louis
Shumate, L. St. Clair, Reeds Spring
Shyken, Herman, St. Louis
Shypper, Moses J., Van Nuys, Calif. (Member Jackson County Medical Society)
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Sights, Warren P., Jr., Columbia
Sigmund, Charles A., St. Ann
Signorelli, Andrew J., St. Louis
Silberman, Henry K., Columbia
Silsby, Don J., Springfield
Silsby, Harry D., Springfield
Silver, Bernd, St. Louis
Silverberg, Charles, St. Louis
Silvermintz, Saul D., Ladue
Simmons, Donald D., Kansas City
Simmons, Earl M., Jr., Columbia
Simmons, Jess S., Jr., Joplin
Simmons, John L., St. Louis
Simms, Otho M., St. Charles
Simon, David L., St. Louis
Simon, Jerome I., St. Louis
Simon, Nathan M., Clayton
Simon, Sanford, Kansas City
Simowitz, Fredric M., St. Louis
Simpson, Albert P., Springfield
Simpson, Emerson L., Springfield
Simril, Wayne A., St. Louis
Sims, William A., Jr., St. Louis
Sinchai, Pravit, New Orleans, La. (Member St. Louis Medical Society)
Sinclair, Richard H., Kansas City
Sincox, Charles H., Washington (Member Platte County Medical Society)
Singleton, Chas. M., II, Kansas City
Singleton, John M., III, Kansas City
Sirridge, Marjorie S., Kansas City
Sirridge, William T., Kansas City
Sisk, James C., St. Louis
Sisler, Maynard Lee, Kennett
Sisson, Richard G., St. Louis
Siu, Kenneth K. C., Jefferson City
Skeffington, Mary Jane, St. Louis
Skilling, David M., Jr., St. Louis
Skillman, Robert K., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Skimming, W. Lee, Olivette
Skinner, John S., St. Louis
Skinner, John T., Kansas City
Sklenar, Donald E., St. Joseph
Slankard, J. Edward, Kansas City
Slaughter, Carl R., Kansas City
Slaughter, Shelby C., Fredericktown
Slentz, Edwin L., Kansas City
Slentz, William A., Kansas City
Sletten, Ivan W., St. Louis
Slickman, Robert A., Kansas City
Sly, William S., St. Louis
Smiley, William, St. Louis
Smit, Herbert M., St. Louis
Smith, Arthur B., Kansas City
Smith, Benjamin F., Jr., St. Louis
Smith, C. Franklin, Willow Springs
Smith, C. Souter, Springfield
Smith, Carl C., Moberly
Smith, Dermott, St. Louis
Smith, Elbert E., III, Kansas City
Smith, Garland F., St. Louis
Smith, George E., Tampa, Fla. (Member St. Louis County Medical Society)
Smith, Herbert P., St. Louis
Smith, Hubert E., Kansas City
Smith, Hugh R., St. Louis
Smith, Ira T., Kansas City
Smith, J. Earl, St. Louis
Smith, James M., Kansas City
Smith, James O., Clinton
Smith, Jason N., Jr., Columbia
Smith, Joe R., Columbia
Smith, John R., St. Louis
Smith, Katherine W., Kansas City
Smith, Kathleen, St. Louis
Smith, Kenneth R., Jr., St. Louis
Smith, Morton E., St. Louis
Smith, Norris W., St. Louis
Smith, Othello D., Prairie Village, Kan. (Member Jackson County Medical Society)
Smith, Robert S., St. Louis
Smith, Robert W., Brookfield
Smith, Roland T., Joplin
Smith, Rollin H., West Plains
Smith, Sidney E., St. Louis
Smith, Ted P., Rolla
Smith, Wallace B., Independence
Smith, William J., Windsor
Smith, W. Russell, Carthage
Smolik, Edmund A., St. Louis
Smoller, Martin B., St. Charles
Smull, Ned W., Kansas City
Snead, William H., Jr., Springfield
Sneid, Philip, Kansas City
Snider, Wilbur R., Independence
Socldner, James O., Kansas City
Solley, Robert F., Old Saybrook, Conn. (Member St. Louis Medical Society)
Solomon, Felix G., St. Louis
Somers, John E., Columbia
Sommer, Conrad S., St. Louis
Sommer, Ross B., St. Louis
Somoza, Jose, Kansas City
Soorya, Narcndir T., St. Louis
Soper, William D., Excelsior Springs
Sopuch, John A., St. Louis
Sorenson, George D., St. Louis
Soscbee, Lee A., Columbia
Soto, Alberto A., St. Louis
Soucy, John C., St. Charles
Soule, Samuel D., St. Louis
Spafford, Allen L., Kansas City
Spalding, David L., Springfield
Spalding, Donald G., St. Louis
Spalding, Wilber B., Plattsburg
Spalding, Wilber B., Jr., Kansas City
Sparkman, Thomas C., Cape Girardeau
Spears, Charles A., Branson
Spears, Joe L., Cabool

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* Doctor of Osteopathy.

Spector, Gene W., St. Louis
Spector, Gershon J., St. Louis
Speer, David L., Creve Coeur
Spencer, Donald M., Kansas City
Speno, Angelo A., St. Louis
Spies, Barbara J., Kansas City
Spinzig, Edgar W., Kirkwood
Spitz, Milton A., Chicago, Ill.
(Member St. Louis County Medical Society)
Spitz, Richard H., St. Louis
Spoeneman, Marlin C., St. Louis
Spoenemann, Walter H., St. Louis
Sportsman, Weldon L., Kansas City
Spratt, John S., Jr., Columbia
Sprinz, Helmuth, Kansas City
Spurgeon, Milo J., Columbia
Spurney, Joe E., Kansas City
Spurny, Otto M., Kansas City
Squitieri, A. J., St. Louis
Stacey, Wallace R., Independence
Stacy, Winton T., St. Joseph
Staehle, Melvin E., St. Louis
Stafford, Walter R., St. Louis
Staggs, William A., Kansas City
Staley, Harry R., Kansas City
Stallard, Donald J., St. Joseph
Stamper, Robert L., St. Louis
Stanfield, Ned M., Jr., St. Louis
Stanley, John H., Kansas City
Stansbrough, Raymond A., Normandy
Staple, Tom W., St. Louis
Starkloff, Gene B., St. Louis
Starkloff, Max, St. Louis
Statland, Harry, Kansas City
Statland, Morris, Kansas City
Staton, R. Hamilton, Carrollton
Stauffacher, C. Gordon, Sedalia
Stauffer, Harry B., Jefferson City
Steele, Jack T., St. Louis
Steele, James C., Jr., Hannibal
Steffen, Lawrence F., Kansas City
Stegman, Elmer G., Raytown
Stein, Arthur H., Jr., St. Louis
Stein, Harry J., St. Louis
Stein, Joseph W., Kansas City
Stein, Leonard P., St. Louis
Steinbeck, Herbert D., Ridgefield, Conn.
(Member Franklin-Gasconade-Warren County Medical Society)
Steinberg, Franz U., St. Louis
Steiner, Alexander J., St. Louis
Steinhoff, Neil, St. Louis
Stelle, Charles W., Prairie Village, Kan.
(Member Jackson County Medical Society)
Stelmach, Walter J., Kansas City
Stephen, C. Ronald, St. Louis
Stephens, Jack D., Kansas City
Stephens, LeRoy J., St. Louis
Stephens, William A., Chesterfield
Stephenson, Hugh E., Jr., Columbia
Stergen, Nick E., Florissant
Sterkel, Richard L., St. Louis
Sterling, John A., Kirkwood
Stevens, Edward M., St. Joseph
Stevens, Robert W., St. Louis
Stewart, Frances H., St. Louis
Stewart, John W., St. Louis
Stewart, Mark A., St. Louis
Stewart, Robert B., Springfield
Stewart, Robert H., Sedalia
Stewart, R. Wendell, Springfield
Stewart, Wellington B., Columbia
Stewart, Wendell K., Cape Girardeau
Stewart, William J., Columbia
Stickle, Arthur W., St. Louis
Stickler, Ralph O., Kirksville
Stindel, Charles E., St. Louis
Stockton, Raymond W., Kansas City
Stockwell, A. Lloyd, Kansas City
Stockwood, Robert C., Sedalia
Stohr, Paul E., St. Louis
Stokes, James M., St. Louis
Stolar, Jacob, St. Louis
Stoneman, William, III, St. Louis
Stotts, Charles S., Fredonia, Kan.
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Stoy, Robert P., Columbia
Strader, Richard P., St. Louis
Stratemeier, Edward H., Kansas City
Stratman, Clarence A., N. Kansas City
Straub, David L., Joplin
Strauchen, Gilbert W., Key Largo, Fla.
(Member St. Louis County Medical Society)
Strauss, Arthur E., St. Louis
Strauss, Carl F., Kansas City
Streetor, Roderick D., St. Louis
(Member Chariton-Macon-Monroe-Randolph County Medical Society)
Strehlman, Benjamin G., Union
Stribling, Thomas L., Independence
Stricker, Emil A., St. James
Stricker, Harold C., Jefferson City
Strobach, Kurt F., St. Louis
Strobach, Robert L., Butler
Strominger, Donald B., St. Louis
Stroud, Malcolm H., St. Louis
Stryker, Garold V., Venice, Fla.
(Member St. Louis Medical Society)
Stryker, William I., Ladue
Stuart, Byron M., Boonville
Stuart, Daniel D., Brunswick
Stuart, Wallace, Eureka
Stuebner, Roland W., Marco Island, Fla.
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Stuerman, Lawrence G., Louisiana
Stufflebam, Robert E., Springfield
Sturtevant, Harwood N., Springfield
Stutsman, Albert C., St. Louis
Suba, Antonio R., St. Louis
Suddarth, Sterling B., Kansas City
Sudholt, Alfred F., Jr., St. Ann
Sugarbaker, Everett D., Jefferson City
Sullivan, Clement J., St. Louis
Sullivan, Wm. Wallace, Kirkwood
Sulzbach, John F., St. Louis
Summers, John B., St. Louis
Summers, Joseph S., Jr., Jefferson City
Summers, Thomas F., St. Louis
Sunderman, Raymond C., St. Louis
Sundstrom, Frank D., Springfield
Sunshine, Herbert, St. Louis
Suraínder, Yeldandi A., Raytown
Susanka, William D., St. Louis
Suseela, Dasari, Kansas City
Susman, Irvin C., St. Louis
Susman, Noah, St. Louis
Sutter, Richard A., St. Louis
Sutton, Richard L., Jr., Kansas City
Sutton, Richard N., Columbia
Swaykus, Bernard T., St. Ann
Sweany, Henry C., Columbia
Sweeney, Thomas P., Springfield
Sweet, Herbert C., Webster Groves
Sweiger, James H., Plattsburg
Swidnicki, Leonid, Hannibal
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Swope, Joseph A., St. Louis
Sword, Richard O., Kansas City
Sydow, Henry A., Fulton
Szabados, Ernest D., Independence
Szymanski, Stanley R., Macon
(Member Grand River Medical Society)

T

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Tamblyn, Claire L., Kansas City
Tanaka, George M., St. Louis
Tanne, Emanuel, St. Louis
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Tarson, Solomon S., Overland Park, Kan.
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Tarvydas, Francis, Edina
Tashma, Sigmund, St. Louis
Tasker, Charles B., Kansas City
Tassi, Albert A., St. Charles
Tatkow, Robert W., St. Louis
Taussig, Barrett L., St. Louis
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Taveras, Juan M., Boston, Mass.
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Taylor, Eugene D., St. Louis
Taylor, Eugene T., St. Louis
Taylor, Helen L., St. Louis
Taylor, Herbert B., St. Louis
Taylor, Leo T., Neosho
Taylor, Leon A., Jefferson City
Taylor, Van W., Bonne Terre
Taylor, William E., Springfield
Teare, Max E., Kansas City
Teiber, Frederick W., St. Louis
Teitelbaum, Steven L., St. Louis
Temporal, Jose A., St. Louis
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Ternberg, Jessie L., St. Louis
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Terry, James F., Springfield
Terry, James W., Jr., Cape Girardeau
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Tess, Melvin J. H., St. Louis
Tesson, James A., Kansas City
Thale, Thomas, St. Louis
Theel, Otto W., Jr., Kansas City
Thiel, J. Allen, St. Louis
Thiele, Belmont R., St. Louis
Thiele, George H., Kansas City
Thiele, Otto K., St. Charles
Thierauf, Charles G., St. Louis
Thies, Jerome H., Osceola
Thoma, George E., Jr., St. Louis
Thomas, Christopher Y., Kansas City
Thomas, Fred A., Kansas City
Thomas, Horace E., Columbia
Thomas, Lewis J., Jr., St. Lous
Thomas, Robert M., Columbia
Thomas, Thomas C., Liberty
Thomasson, David D., Springfield
Thomasson, Robert E., St. Louis
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Thompson, F. Gregg, III, St. Joseph
Thompson, Ian M., Columbia
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Throgmorton, Howard B., Sikeston
Throne, Elias M., Kansas City
Thurman, Hill C., Parkville
Thurmann, Manfred, St. Louis
Thym, Henry P., Ballwin
Tibbs, William A., Jr., St. Louis
Tice, Wayne K., Independence
Tichenor, Robert W., St. Louis
Tietjen, Frederick O., Jefferson City
Tiffany, Delbert E., Poplar Bluff
Till, Bennie N., Poplar Bluff
Tillema, David A., Kansas City
Tillman, Mary A. T., St. Louis
Tillman, Walter W., Jr., Springfield
Tindall, Robert N., St. Louis
Tinsley, John C., Jr., Columbia
Tiojanco, Milagros E., Kansas City
Tiojanco, Reynaldo, Grandview
Tiongson, Porfirio M., St. Louis
Tippett, Jack C., St. Louis
Tjoflat, Oliver E., St. Louis
Tobias, Norman, St. Louis
Todd, Paul C., Marceline
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Tomlinson, William L., St. Louis
Tompson, Robert V., Moberly
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°Toon, Thomas J., St. Louis
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Trowbridge, Barnard C., Kansas City
Trowbridge, Ellsworth H., Jr., Kansas City
Trueblood, Alva C., Jr., St. Louis
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Trunko, Leo, St. Louis
Tsang, John L. K., Springfield
Tsifutis, Argyrios, Brentwood
Tucker, Eugene F., St. Louis
Tucker, George L., St. Louis
Tull, Frank, Sikeston
Tuma, Arthur T., Poplar Bluff
Tuohy, Gerald F., Kansas City
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Turner, Glenn O., Springfield
Turner, James H., Poplar Bluff
Turner, James K., St. Louis
Turner, Kirby L., Potosi
Turner, Ronald M., Independence
Turner, Rush, St. Louis
Turner, William F., Poplar Bluff
Tutera, Dominic F., Kansas City
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° Doctor of Osteopathy.

Tygett, Glenn J., Cape Girardeau
Tygett, Joseph N., Cape Girardeau

U

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W

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Wurster, Jerry B., Kansas City
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Y

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Yannakakis, John E., Florissant
Yanow, Mitchell, St. Louis
Yap, Mardonio J. R., St. Louis
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Youmans, Ronald A., Kansas City
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Z

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Zimmerman, Joseph A., Kennett
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Zink, Oscar C., St. Louis
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The 115th

ANNUAL SESSION

of the

Missouri State Medical Association

will be held on

MARCH 29-APRIL 1, 1973

Chase-Park Plaza Hotel St. Louis

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(See Instructions on Page 575)

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Kelley, Gilbert B., Savannah
Villahermosa, Juanito L., Savannah

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Politte, Lenard L., 113 W. Broadway
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Woodruff, Calvin W., 807 Stadium Rd.
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Andres, Edward H., 902 Edmond 64501
Augustine, Robert W., 902 Edmond St. 64501
Bartulica, Nicholas, 3400 Frederick Ave. 64502
Beck, Paul M., Kirkpatrick Bldg. 64501
Beheler, Edward M., 2403 Frederick Ave. 64506
Benson, Scott C., 324 N. 6th St. 64501
Berney, Francis J., Kirkpatrick Bldg. 64501
Bristow, Robert B., Physicians & Surgeons Bldg. 64501

° Doctor of Osteopathy.

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Butler, Elza F., 902 Edmond St. 64501
Callman, George, State Hosp. No. 2 64502
Carpenter, George T., 902 Edmond St. 64501
Challener, William A., III, 902 Edmond 64501
Christ, Martin H., 6106 King Hill Ave. 64504
Cox, John P., 902 Edmond St. 64501
Craig, Owen W. D., Kirkpatrick Bldg. 64501
Craig, Richard O., 320 Pioneer Bldg. 64501
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Decanini, Mario, P. O. Box 11 64502
DuMont, Clement C., 1905 Francis St. 64501
Ferguson, Luther J., 2907 Francis St. 64501
Fischer, Martin J., 902 Edmond, 64501
Fisher, Joseph L., 7th & Jule Sts. 64501
Forgrave, Leon P., 1 Hundley Dr. 64506
Forman, George W., P.O. Box 830 64502
Fox, Gerald E., Methodist Hospital, 8th & Faraon 64501
Fuson, Levi H., Route 3 64506
Garrison, David L., 902 Edmond 64502
Gracia, Antonio J., Box 2496, Valdosta, Ga. 31601
Grant, Claude S., 1302 Faraon St. 64501
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Grimes, Manning E., Kirkpatrick Bldg. 64501
Gunter, Joe S., 902 Edmond St. 64501
Handler, Eric, Physicians and Surgeons Bldg. 64501
Harner, Casper G., 902 Edmond St. 64501
Hayes, Paul W., 902 Edmond St. 64501
Herman, Allen I., Physicians and Surgeons Bldg. 64501
Howden, Thomas L., 2723 Francis 64501
Hughes, Judson M., 3306 Jennifer La. 64506
Ide, Lucien W., P. O. Box 830 64502
Jimenez, Jose, 1004 Rush Road 64502
Kieber, Robert W., Kirkpatrick Bldg. 64501
Kline, Carlyn M., 17 Stonecrest St. 64506
Kline, Edmund W., 510 Francis St. 64501
Knepper, Paul A., 902 Edmond St. 64501
Kulowski, Jacob, 2404 Highly St. 64506
Lee, Carleton H., 1402 Faraon St. 64501
Lefebvre, Flordeliza, 902 Edmond 64502
Lehman, Philip C., 510 Francis St. 64501
McDaniel, John R., 902 Edmond St. 64501
McDonald, Wilbur P., 301 N. 8th St. 64501
Maginn, Richard L., 702 Jule St. 64501
Marston, F. James, Jr., 902 Edmond St. 64501
Martin, John N., Physicians and Surgeons Bldg. 64501
Minton, Robert S., Forest City 64451
Moen, Berwyn H., 902 Edmond St. 64501
Morse, John P., 902 Edmond St. 64501
Morse, Marvin, 2702 Faraon St. 64501
Mothershead, John L., 2603 Frederick Ave. 64501
Muench, Albert H., Physicians and Surgeons Bldg. 64501
Mullinax, Orr, Robidoux Motor Hotel 64501
Mundy, Homer F., 7114 St. Andrews Dr., Bakersfield, Calif. 93309
Ness, Carl K., 902 Edmond St. 64501
O'Brien, Liam, State Hospital No. 2 64502
O'Connor, William B., 510 Francis St. 64501
Pe, Romualdo L., V.A. Hospital, Danville, Ill. 61832
Petersen, Harold E., 2401 Frederick Ave. 64501
Pfeffer, Robert I., 1915 N. 29th St. 64506
Pifer, Lawrence H., 1302 Faraon St. 64501
Potter, Caryl A., Jr., Pioneer Bldg. 64501
Prokop, Joseph R., 902 Edmond St., 64501
Raphel, Jose, 37 Northridge Dr. 64506
Redmond, William, Corby Bldg. 64501
Riddell, Richard V., 902 Edmond St. 64501
Roberts, Phyllis Grant, 3314 Linda La. 64506
Rogers, John T., 2502 Ashland Ave. 64506
Rosenthal, Irwin I., State Hospital No. 2 64502
Rost, William B., 2221 N.W. Extension Blvd. 64506
Ryan, John H., 301 N. 8th St. 64501
Sanchez, Salvador Valera, 3400 Frederick 64506
Senne, Herbert C., 223 N. 7th St. 64501
Senor, Samuel E., 722½ Francis 64501
Shevlin, Charles F., 902 Edmond St. 64501
Sklenar, Donald E., 228 Illinois Ave. 64504
Stacy, Winton T., 1215 N. 24th St., 64506
Stallard, Donald J., 902 Edmond St. 64501
Stevens, Edward M., 702 Jule St. 64501
Thompson, F. Gregg, III, 902 Edmond St. 64501
Tovar, Manuel, 13th & Faraon St. 64501
Wadlow, Ernest E., 510 Francis St. 64501
Waggoner, Sharon E., 301 Illinois Ave. 64504
Wallace, Hilen K., 5th and Francis St. 64501
Weed, Randal W., 702 Jule St. 64501
Weinand, Ernest E., 902 Edmond St. 64501
Whitsell, Ora E., 802 N. 23rd St. 64506
Willman, Charles R., 2405 Frederick Ave. 64501
Willumsen, Henry C., 902 Edmond St. 64501
Windsor, David G., 600 E. 22nd, Kansas City 64108

BUTLER-WAYNE-RIPLEY COUNTY MEDICAL SOCIETY
(Poplar Bluff 63901)

Barbour, Marvin R., Kneibert Clinic
Beecher, Sheldon B., 1517 Rosedale Ave.
Biggs, Fred J., Jr., Kneibert Clinic
Brookreson, Alton D., 1500 Luclyn
Brookreson, Alton F., 217 Oak St.
Caldwell, Fred, Kneibert Clinic
Camp, Richard V., Jr., 911 Lester
Canlas, Emilio M., P. O. Box 1009
Carlson, E. C., 623 Pine
Christy, John P., 623 Pine Blvd.
Cline, Harold H., Piedmont 63957
Dinelli, Frank E., 215 Oak St.
Engelhardt. Robert C., Kneibert Clinic
Fraser, Richard A., 621 Pine
Gernstetter, Sangwill L., P. O. Box 337
Hansbrough, Eugene T., 623 Pine Blvd.
Harwell, J. Lester, Plantation House, Apt. 104, 2400-44th St., Lubbock, Tex. 79412
Hecker, Joseph E., Kneibert Clinic
Hoja, W. Alexander, Kneibert Clinic
Hunt, John L., 2106 Jackson Rd.
Kneibert, Fred L., Kneibert Clinic
Ladyman, George H., 623 Pine St.
Leroux, Gene, Doniphan 63935
Lestmann, Henry E., 202 Plum, Doniphan 63935
Loughead, John R., 330 N. 2nd St.
McLain, Bobby M., Route 2
McLane, Jerry F., 330 N. 2nd St.
McPheeters, James W., Sr., 330 N. 2nd St.
Macauley, Bernard J., 215 Oak St.
Markel, Arthur D., Kneibert Clinic
May, Albert L., Jr., 330 N. 2nd St.
Miller, David V., Kneibert Clinic
Morgan, Marvin W., 2710 Shady Lane
Parker, Arthur C., Jr., Kneibert Clinic
Plunkett, Littleton J., Jr., 330 N. 2nd
Ramirez, Ricardo M., Kneibert Clinic
Raper, Charles A., 330 N. 2nd St.
Reddy, Sarvotham K., 623 Pine Blvd.
Robertson, William D., Poplar Bluff
Ruff, T. Eugene, Kneibert Clinic
Shriver, Ronald G., 623 Pine Blvd.
Tiffany, Delbert E., Rt. 3, Box 36, Peaceful Acres
Till, Bennie N., 2030 Meadows
Tuma, Arthur T., 215 Oak St.
Turner, James H., 217 Oak St.
Turner, William F., 217 Oak St.
Ward, Robert L., Corning, Kan. 72422
White, Barry B., 330 N. 2nd St.

CALDWELL COUNTY
(Grand River Medical Society)

CALLAWAY COUNTY MEDICAL SOCIETY
(Fulton 65251)

Brown, John J., 101 E. 6th St.
Brown, Katherine S., 1304 Vine St.
Cremer, William J., State Hosp. No. 1
Domke, Herbert R., 221 W. High, Jefferson City 65101
Durst, Henry, 610 Court St.
Gish, Rutledge, 5 E. 5th St.
Groce, George, 820 Jefferson St.
Hill, James E., 820 Jefferson St.
Jackson, Vernon B., State Hosp. No. 1
Osbourn, Richard A., 820B Jefferson
Peterson, Donald B., State Hosp. No. 1
Ritterbusch, James K., State Hosp. No. 1
Sydow, Henry A., 102 Saults Addition
Tuttle, Jay F., Farmington State Hospital, Farmington 63640
Wood, George F., 614 Market St.

CAMDEN COUNTY

Carnell, B. M., Camdenton 65020 (Member Mid-Missouri County Medical Society)
Garrison, T. W., Camdenton 65020 (Member Mid-Missouri County Medical Society)
Holley, Donald B., Camdenton 65020 (Member Mid-Missouri County Medical Society)
Wayland, Thomas A., Camdenton 65020 (Member Cole County Medical Society)

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY
(Cape Girardeau 63701)

Alyea, J. O., 937 Broadway
Ashley, Hugh V., P. O. Box 618
Ashley, Hugh V., Jr., P. O. Box 618
Bahn, Charles F., 801 S. Mount Auburn Rd.
Barnes, Seth S., 1854 Broadway
Blankenship, Dale M., 1930 Broadway
Burford, Edwin K., Jr., 937 Broadway
Campbell, Edward D., 937 Broadway
Chapman, Jean A., 801 S. Mount Auburn Rd.
Cochran, Jo R., 24 N. Sprigg St.
Cozean, Charles H., Jr., 937 Broadway
Crowe, John T., 937 Broadway
Dinkins, James A., 937 Broadway
Downey, Jon Patrick, 210 Christine
Elrod, Dennis B., 211 N. Sprigg St.
Essmyer, Joseph K., 937 Broadway
Estes, Albert M., 714 Broadway
Herbert, Charles T., 824 Good Hope St.
Holcomb, John K., 24 N. Sprigg St.
Horn, Paul C., 1905 Broadway
Hoxworth, Gerald M., 313 Woodhill Rd., Columbia 65201
Hunt, Robert S., 10 Doctors' Park
Jaeger, Joseph N., 208 S. High St., Jackson 63755
Johnson, Earl W., 937 Broadway
Johnson, Ernest D., 937 Broadway
Jones, David N., 210 Christine
Jung, J. Marshall, 101 E. El Cortez, R-4, Columbia 65201
Kasten, Melvin C., 1209 Sailer Circle
Keim, John H., 643 N.W. End Blvd.
Kinder, James A., 937 Broadway
Kinder, Jerry L., Doctors' Park
Kratz, Paul E., 2560 Gordonville Rd.
Lovinggood, Thomas A., 2505 Allendale
McDonald, Eugene F., 125 Court St., Jackson 63755
McGinty, Charles P., 10 Doctors' Park
Magaletta, George E., 937 Broadway
Nunnelly, Gordon M., 1924 Broadway
Nussbaum, Paul B., 1858 Broadway
Oehler, William F., 213 N. Sprigg St.
Otto, Thomas G., 1912 Broadway
Parsons, D. LeRoy, 24 N. Sprigg St.
Rapp, Harold B., 1011 N. Henderson St.
Rawlins, Fred E., 1607 Berthing Ave.
Reimer, Donald Ross, 234 Greenwood, Topeka, Kan. 66601
Reynolds, Garland A., P. O. Box 817
Ridings, Harold D., 937 Broadway
Ritter, C. John, 801 S. Mount Auburn Rd.
Ritter, Raymond A., 1912 Broadway
Ritter, Raymond A., Jr., 1912 Broadway
Seabaugh, L. R., Doctors' Park
Seabaugh, William O. L., 24 N. Sprigg St.
Shoss, Milton, 937 Broadway
Sparkman, Thomas C., 601 N. Kingshighway
Stewart, Wendell K., 723 North Sunset
Talbert, Clifford R., 801 S. Mount Auburn Rd.
Terry, James W., Jr., #18 Doctors' Park
Tygett, Glenn J., 834 Alta Vista Dr.
Tygett, Joseph N., 17 Doctors' Park
Weeks, George R., 937 Broadway
Williams, W. A., Jr., 24 N. Sprigg St.
Wilson, Charles F., 714 Broadway
Wolff, Paul G., 1819 Broadway

CARROLL COUNTY
(Grand River Medical Society)

CASS COUNTY
(West Central Missouri Medical Society)

CEDAR COUNTY
(West Central Missouri Medical Society)

CHARITON-MACON-MONROE-RANDOLPH COUNTY MEDICAL SOCIETY

Arnold, Eugene L., 8338 Jennings Rd., Jennings 63136
Baker, Josephine D., Moberly 65270
Barnett, Floyd A., Paris 65275
Campbell, James E., Macon 63552
Chute, W. Deward, Moberly 65270
Cohrs, Clarence C., Moberly 65270
Collins, Gretchen D., Macon 63522
Dreyer, Philip V., Huntsville 65259
Eggleston, Donald E., Macon 63552
Fleming, J. Will, Jr., Moberly 65270
Fleming, Thomas S., Moberly 65270
Harms, Florian L., Salisbury 65281

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* Doctor of Osteopathy.

Huber, Lasley E., Moberly 65270
Hudson, G. R., Moberly 65270
Miller, D. Herbert, 4410 Denison St., Muskogee, Okla. 74401
Ragsdale, George M., Paris 65275
Smith, Carl C., Moberly 65270
Streetor, Roderick D., 245 Union Blvd., St. Louis 63108
Stuart, Daniel D., Brunswick 65236
Tompson, Robert V., Moberly 65270
Young, Robert H., Moberly 65270

CHRISTIAN COUNTY
(Ozarks Medical Society)

CLARK COUNTY
(Lewis-Clark-Scotland County Medical Society)

CLAY COUNTY MEDICAL SOCIETY

Adams, Howard D., 114 N. Water St., Liberty 64068
Allain, James J., 2022 Swift St., N. Kansas City 64116
Allen, Louis A., 2800 Hospital Dr., N. Kansas City 64116
Armstrong, Jay H., 4812 Black Swan Dr., Shawnee Mission, Kan. 66216
Arst, Herbert E., 408 E. 68th St. N., Kansas City 64118
Ashby, Jennifer D., 116 South St., Excelsior Springs 64024
Balhuizen, John, 5601 N. Antioch Rd., Kansas City 64119
Banks, Frank R., Apt. 127, 2840 Robinson Rd., Jackson, Miss. 39209
Bates, George C., 5140 Antioch Rd., Kansas City 64119
Battmer, Robert E., 114 N. Water, Liberty 64068
Bliss, Joy V., 116 South St., Excelsior Springs 64024
Boone, Daniel C., 5800 N. Grand Ave., Kansas City 64118
Bowles, Richard P., 114 N. Water St., Liberty 64068
Burke, Emmet K., 5140 Antioch Rd., Kansas City 64119
Castillo, Michael E., 2601 Kendallwood Pkwy., Kansas City 64119
Chiles. David R., Box 238, Smithville 64089
Comer, J. Russell, 1332 W. Truman Rd., Independence 64051
Cook, Jerry W., 7010 N. Cherry, Kansas City 64118
Cramer, Quentin, 1073 S. Shore Dr., Parkville 64048
Deligeorges, John, 7010 N. Cherry, Kansas City 64118
Denton, Robert E., Smithville 64089
Demoncourt, John E., Smithville 64089
Devine, Mark W., Jr., 5601 Antioch Rd., Kansas City 64119
Dolan, C. Terrence, 5140 N.E. Antioch, Kansas City 64119
Dunham, Robert H., 6022 N. Antioch Rd., Kansas City 64119
Edwards, Theodore F., 2029 Burlington St., Kansas City 64116
Fakhoury, Donald A., 4030 N. Oak St., Kansas City 64111
Fischer, Edward H., Suite 415, 2929 Baltimore Ave., Kansas City 64108
Flanders, Virgil E., 2022 W. 91st St., Leawood, Kan. 66206
Fotopoulos, Chris K., 2022 Swift, North Kansas City 64116
Fowler, I. Charles, 2025 Swift, N. Kansas City 64116
Galbol, Harley, 522 Elms Blvd., Excelsior Springs 64024
Gauer, Robert J., 525 N.W. 43rd Terr., Kansas City 64116
Gilani, Abdollah, 410 Superior, Excelsior Springs 64024
Haffner, Joel J., 6908 N.W. Overland Dr., Kansas City 64151
Haley, Ted M., 405 E. 19th Ave., N. Kansas City 64116
Hall, James W., 7010 N. Cherry, Kansas City 64118
Hayes, Lawrence L., 8400 N. Oak Trafficway, Kansas City 64155
Hedges, Richard C., 402 St. Louis Blvd., Excelsior Springs 64024
Hendren, Thomas H., 2022 Swift, Kansas City 64116
Hodge, Robert H., 2029 Burlington Ave., Kansas City 64116
Houck, Russell M., V. A. Hospital, Kecoughtan, Va. 23367
Huddleston, Harvey T., Smithville Clinic, Smithville 64089
King, Phillip E., Westowne Place, Liberty 64068
Kirkland, Jerry A., 8630 N. Oak Trafficway, Kansas City 64155
Kuenzi, Donald E., 8630 N. Oak Trafficway, Kansas City 64155
Langhus, Melvin O., 104 W. Englewood Rd., N. Kansas City 64118
Lanning, R. James, 2928 Main, Kansas City 64108
Littlejohn, Robert T., 2030 Swift, N. Kansas City 64116
McCormick, James E., 4030 N. Oak St., Kansas City 64111
McCracken, Samuel R., Box 220, Excelsior Springs 64024
McPhee, William R., 2800 Hospital Dr., Kansas City 64116
Mullins, Bernard L., 405 E. 19th St., N. Kansas City 64108
Musgrave, David E., Excelsior Springs 64024
Parker, Robert H., 5601 N. Antioch Rd., Kansas City 64119
Perico, Carlos J., 405 E. 19th Ave., Kansas City 64116
Perry, Lawrence L., Jr., 6300 N. Lenox St., Kansas City 64151
Pileggi, Felix A., 405 E. 19th St., N. Kansas City 64108
Porter, Russell C., 3747 Atlantic #620, Long Beach, Calif. 90680
Purcell, P. L., Smithville 64089
Raines, Oney C., III, 4124 Vivion Rd., Kansas City 64119
Reeder, Charles C., Smithville Clinic, Smithville 64089
Revare, Paul, 4100 Vivion Rd., Kansas City 64119
Robichaux, Eugene B., 116 South St., Excelsior Springs 64024
Robinson, Van M., 4124 Vivion Rd., Kansas City 64119
Sanders, George E., P.O. Box 207, Excelsior Springs 64024
Sawyer, Floyd E., 5350 N. Oak St. Trafficway, Kansas City 64118
Schertz, Truman B., 2022 Swift St., N. Kansas City 64116
Schultz, Robert V., 1940-152 Highway, Liberty 64068
Schutz, John P., 1236 Jesse James Rd., Excelsior Springs 64024
Shaw, Robert F., 605 Wood Court, Liberty 64068
Slaughter, Carl R., 1001 N. Woodland, Kansas City 64118
Somoza, Jose R., 2800 Hospital Dr., North Kansas City 64116
Soper, William D., 1236 N. Jesse James Rd., Excelsior Springs 64024
Sportsman, Weldon L., 410 N.E. 68th St. North, Kansas City 64118
Stratman, Clarence A., 1500 N.E. 57th Terr., Kansas City 64118
Thomas, Fred A., 5601 N. Antioch Rd., Kansas City 64119
Thomas, Thomas C., P.O. Box 217, Liberty 64068
Trimble, David P., Jr., 116 South St., Excelsior Springs 64024
Triplett, Daniel A., 4124 Vivion Rd., Kansas City 64119
Vilmer. Charles, 2030 Swift, N. Kansas City 64116
Wald, Donald M., 2800 Hospital Dr., N. Kansas City 64116
Waterman, Franklin M., Liberty 64068
Werner, Dean F., 2025 Swift St., N. Kansas City 64116
Werner, Franklin C., 5140 Antioch Rd., Kansas City 64119
Williams, John M., 32 S. Main St., Liberty 64068
Williams, Robert D., 6700 Troost, Kansas City 64131
Williamson, G. L., 2030 Swift, N. Kansas City 64116
Withrow, John B., 5601 Antioch Rd., Kansas City 64119
Workman, Charles E., 2030 Swift, N. Kansas City 64116
Wright, Earl J., 8364 N. Overland Dr., Kansas City 64151

CLINTON COUNTY MEDICAL SOCIETY

Luckenbill, Paul T., Plattsburg 64477
Ozenberger, Larry A., Plattsburg 64477
Spalding, Wilber B., Plattsburg 64477
Sweiger, James H., Plattsburg 64477

COLE COUNTY MEDICAL SOCIETY
(Jefferson City 65101)

Allan, James E., 2009 E. McCarty
Belden, Edgar A., 2124 Lowell
Bowe, Edwin Earl, 515 E. High
Bregant, Robert E., 515 E. High
Clark, Kendall A., 515 E. High St.
Cooper, Charles W., 423 Cherry St.
Courter. Larry P., 515 E. High
Cox, William A., 105 W. High
Davisson, Walter F., Jr., 913 Leslie Blvd.
Doyle, Matthew J., 515 E. High St.
Exon, C. Stuart, 515 E. High St.
Files, James B., Charles E. Still Hospital
Fullgrabe, E. A., State Office Bldg.
Garner, Lynn M., State Division of Health
Garner, Royal S., 1804 Southwest Blvd.
Gentry, Merritt L., P.O. Box 570
Gordon, James S., 515 E. High St.
Guhleman, Henry V., Jr., 506 E. High
Gurnee, Landon H., 515 E. High St.
Handler, Fred P., 614 Boonville Rd.
Hauser, Robert J., 515 E. High St.
Kanagawa, Harold K., 701 W. High
Kelly, Marshall W., 612 E. High St.
Klebba, Larry B., P. O. Box 403
Leslie, J. Paul, East Louisiana State Hospital, Jackson, La. 70748
Leslie, James T., Jr., 1433 Southwest Blvd.
Loyd, Earl L., Riviera Heights, Holts Summit 65043
McCaffree, Mary K., 903 Southwest Blvd.
McHaney, John W., 606 E. High St.
McKnelly, William V., 507 E. High St.
Mansur, Edward E., 519 S. Carolina Dr. Stuart, Fla. 33494
Matthews, John I., 701 W. High
Maxey, Hugh W., 2412 Sterling, Quincy, Ill. 62301
Meier, Francis X., 1913 Hayselton Dr.
Meinershagen, Charles W., 111 Forest Hill
Moseley, Otis O., Box 248, Osage Beach 65065
Ossman, Julian A., 2407 W. Main
Robb, Harold Phillip, 722 Jefferson
Russell, Joseph P., Division of Health
Ryan, Thomas J., 1433 Southwest Blvd.
Sanders, Jack S., 515 E. High St.
Schmidt, J. H., 824 Southwest Blvd.
Schokker, Johannes, 2009 E. McCarty
Scott, E. David, 2009 E. McCarty
Sennott. John S., 515 E. High St.
Shull. G. Donald, 521 E. High St.
Siu, Kenneth K. C., 915 Leslie Blvd.
Stauffer, Harry B., 830 Boonville Rd.
Stricker, Harold C., 515 E. High St.
Sugarbaker, Everett D., 503 E. High St.
Summers, Joseph S., Jr., 515 E. High St.
Tanner, Robert H., 1910 Greenberry Rd.
Taylor, Leon A., 1104 W. Main
Tietjen, Frederick O., 1433 Southwest Blvd.
Van Vranken, Eugene E., 221 W. High
Wallace, John K., II, 220 Ridgeway Dr.
Watts, Byron E., 515 E. High St.
Wayland, Thomas A., Box 239, Camdenton 65020
Winegar, Alvon C., 515 E. High St.

COOPER COUNTY MEDICAL SOCIETY
(Boonville 65233)

Abele, Wm. A., 329 Main
Avery, Willard B., 329 Main St.
Diekroeger, Manuel L., Route 1
Hata, Daikichi, 329 Main St.
Humphreys, Edward T., 329 Main St.
Stuart, Byron M., 329 Main St.
Winn, George W., 329 Main St.

CRAWFORD COUNTY
(Mid-Missouri County Medical Society)

DADE COUNTY
(Dallas-Hickory-Polk-Dade Medical Society)

DALLAS-HICKORY-POLK-DADE COUNTY MEDICAL SOCIETY

Barnett, Charles H., Bolivar 65613
Bauer, Harold A., Lockwood 65682
Griffin, Evelyn, Buffalo 65622
Griffin. Olin A., Jr., Buffalo 65622
Harrell, Henry J., Rt. 1, Box 535, Summerfield, Fla. 32691
Kahler, Monte R., Bolivar 65613
Koon, Ben H., Bolivar 65613
McCraw, Doyle C., Bolivar 65613
McNeel, Lee A., Jr., Greenfield 65661
Robinson, George G., Humansville 65674

DAVIESS COUNTY
(Grand River Medical Society)

DEKALB COUNTY
(Grand River Medical Society)

° Doctor of Osteopathy.

DENT COUNTY (Mid-Missouri County Medical Society)

DOUGLAS COUNTY (South Central Counties Medical Society)

DUNKLIN COUNTY MEDICAL SOCIETY

Benson, Leo J., Jr., Kennett 63857
Cash, Charles R., Kennett 63857
Croom, Dorwyn W., Malden 63863
Dunmire, George Q., Kennett 63857
English, Wallace D., Cardwell 63829
Garrison, Norman A., Jr., 919 S. Jackson, Kennett 63857
Hopkins, Florian G., Gideon 63848
Legan, John K., Kennett 63857
Miltenberger, Paul C., Kennett 63857
Morehead, William E., Malden 63863
Palenske, Robert L., Hornersville 63855
Peck. Chester R., Jr., Kennett 63857
Pu, Pin H., P.O. Box 552, Kennett 63857
Rutledge, William J., Campbell 63933
Sisler, Maynard Lee, 215 Teaco Rd., Kennett 63857
Tarver, Quinton, Kennett 63857
Wilson, Loys C., Kennett 63857
Zimmerman, Joe A., Kennett 63857

FRANKLIN-GASCONADE-WARREN COUNTY MEDICAL SOCIETY

Baker, Donald L., Union 63084
Bonney, Samuel C., Washington 63090
Bozzo, Raymond J., Washington 63090
Brenner, Paul A., Owensville 65066
Crawford, Robert M., Sullivan 63080
de la Torre, John J., Sullivan 63080
Denny, Hubert M., P. O. Box 387, Union 63084
Eisenmann, Benjamin P., New Haven 63068
Eyermann, H. Walter, Warrenton 63383
Farrell, S. L., Washington 63090
Hoelscher, Harold F., Warrenton 63383
Jorel, Louis E., Hermann 65041
Mays, Frank G., Washington 63090
Mitchell, Thomas J., St. Clair 63077
Moellenhoff, Robert W., Washington 63090
Murney, Joseph A., Washington 63090
Post, John P., Washington 63090
Richardson, George A., Union 63084
Richardson, William R., Union 63084
Royse, Roy P., Sullivan 63080
Ryan. John B., Washington 63090
Schmidt, Charles A.. Gerald 63037
Shea, James G., Washington 63090
Steinbeck, Herbert D., Mamansco Rd., Ridgefield, Conn. 06877
Strehlman, Benjamin G., Union 63084
Workman, George M., Hermann 65041

GASCONADE COUNTY (Franklin-Gasconade-Warren County Medical Society)

GENTRY COUNTY (Northwest Missouri Medical Society)

GRAND RIVER MEDICAL SOCIETY (Caldwell-Carroll-Livingston-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb Counties)

Allen, Erroll W., Carrollton 64633
Atcheson, Windsor B., Trenton 64683
Bales, Eugene L., Carrollton 64633
Bohnsack, Ralph W., Brookfield 64628
Brennan, Raymond J., Chillicothe 64601
Broyles, Watkins A., Bethany 64424
Carter, Howard. Hamilton 64644
Cofer, T. N., Chillicothe 64601
Conrad, Joseph, Chillicothe 64601
Cross, Albert D., Trenton 64683
Daley, Frank R., Hamilton 64644
Dixon, John R., Brookfield 64628
Dowell, Donald M., Chillicothe 64601
Dowell, J. Larry, Pattonsburg 64670
Duffy, Oliver F., Trenton 64683
Ellsworth, Willard, Cainsville 64632
Fair, William L., Chillicothe 64601
Fuson, William A., Trenton 64683
Gale. Joseph F., Chillicothe 64601
Galvez, Sisenande P., Jr., 1500 N. Kansas, Marceline 64658
Gary, George, Marceline 64658
Gearhart, Merriam, Bethany 64424
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Saferstein, A. Lester, 6859 Cherry 64131
Saladino, Anthony, 2009 W. 67th, Shawnee Mission, Kan. 66208
Samuelson, Edward A., 4620 Nichols Parkway 64112
Sanders, Donald C., 411 Nichols Rd. 64112
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Sanders, William F., 411 Nichols Rd. 64112
Sandow, Theodore L., Jr., 4320 Wornall Rd. 64111
Santoro, Carlos G., 1103 Westport Rd. 64111
Sasano, Joseph R., Jr., 1710 Independence Ave. 64106
Sauer, Gordon C., 6400 Prospect Ave. 64132
Scales, Margaret B., 6601 Rockhill Rd., 64131
Schaerrer, William C., 4320 Wornall Rd. 64111
Schiffmacher, Jack E., Professional Bldg. 64106
Schillie, Gene A., 6400 Prospect 64132
Schmidt, C. Robert, 6400 Prospect 64132
Schoolman, Arnold, 6700 Troost 64131
Schottman, Gerhard W., Jr., St. Luke's Hosp. 64111
Schutz, Carl B., 841 San Pablo Dr., San Marcos, Calif. 92069
Schutz, Richard B., 411 Nichols Rd. 64112
Seely, Clark W., 3000 W. 68th, Shawnee Mission, Kan. 66208
Seiden, Gerald D., 6700 Troost 64131
Sells, Kenneth J., Suite 310, 2929 Baltimore Ave. 64108
Shalet, Malcolm F., 425 E. 63rd St. 64110
Shapiro, Lazare M., 701 E. 63rd St. 64110
Sheahon, John A., 6706 Raytown Rd. 64133
Shechter, Nathan, 601 E. 63rd 64110
Shelden, Russell D., 6400 Prospect 64132
Shifrin, Alexander, 6700 Troost 64131
Shireman, Kenneth L., 6518 Independence Ave. 64125
Shockley, Clarence J., 5927 McGee 64113
Shuey, Herbert H., 3 E. Gregory 64114
Shypper, Moses J., 13527 Crewe St., Van Nuys, Calif. 91405
Siegel, Carl, 601 E. 12th 64106
Simmons, Donald D., 4324 Main 64111
Simon, Sanford, 751 E. 63rd St. 64110
Sinclair, Richard H., 4620 Nichols Parkway 64112

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Sirridge, Marjorie S., 25th & Cherry 64108
Sirridge, Wm. T., 24th & Cherry 64108
Skillman, Robert K., 4320 Wornall Rd. 64111
Skinner, John T., Bryant Bldg. 64106
Slankard, Edward, 4320 Wornall Rd. 64111
Slentz, Edwin L., 4320 Wornall Rd. 64111
Slentz, William A., 4320 Wornall Rd. 64111
Slickman, R. A., 2929 Baltimore 64108
Smith, Arthur B., 6400 Prospect Ave. 64132
Smith, Elbert E., III, 4320 Wornall Rd. 64111
Smith, H. Eugene, 411 Nichols Rd. 64112
Smith, Ira T., 6400 Prospect 64132
Smith, James M., 2929 Baltimore 64108
Smith, Katherine W., 1710 Independence Ave. 64106
Smith, O. D., 5400 W. 83rd., Prairie Village, Kan. 66208
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Snider, Wilbur R., 10901 Winner Rd., Independence 64052
Soeldner, James O., Meyer Blvd. at Prospect 64132
Spafford, Allen L., 315 Nichols Rd. 64112
Spalding, Wilber B., Jr., 2928 Main 64108
Spencer, Donald M., 4240 Blue Ridge Blvd. 64133
Spies, Barbara J., 11201 Colorado 64137
Sprinz, Helmuth, 24th & Cherry 64108
Spurney, Joe E., 11201 Colorado 64137
Spurny, Otto M., 425 E. 63rd St. 64110
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Staggs, William A., Suite 335, 2929 Baltimore Ave. 64108
Stalev, Harry R., Bryant Bldg. 64106
Stanley, John H., 4643 Wyandotte 64112
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Statland, Morris, 601 E. 63rd St. 64110
Steffen, Lawrence F., 4706 Broadway 64112
Stegman, Elmer G., 6137 Blue Ridge Blvd., Raytown 64133
Stein, Joseph W., 2929 Baltimore 64108
Stelle, Charles W., 4304 W. 82nd Terr., Prairie Village, Kan. 66208
Stelmach, Walter J., 6700 Troost 64131
Stephens, Jack D., 751 E. 63rd 64110
Stockton, Raymond W., 4320 Wornall Rd. 64111
Stockwell, A. Lloyd, Professional Bldg. 64106
Stotts, Charles S., R.R. 4, Fredonia, Kan. 66736
Stratemeier, Edward H., 31st & Wyandotte 64108
Strauss, Carl F., 8300 Troost 64131
Stribling, Thomas L., 2116 S. Sterling Ave., Independence 64052
Suddarth, Sterling B., 4240 Blue Ridge Blvd. 64133
Surainder, Yeldandi A., 9406 E. 63rd, Raytown 64133
Suseela, Dasari, 2310 E. Linwood Blvd. 64109
Sutton, Richard L., Jr., 411 Nichols Rd. 64112
Swisher, Robert C., 640 Lilac Lane, Sacramento, Calif. 95820
Switzer, Clyde, 8100 W. 54th Terr., Overland Park, Kan. 66202
Sword, Richard O., 800 W. 74th St. 64110
Szabados, Ernest D., 1612 W. Truman Rd., Independence 64050
Tamblyn, Claire L., 6400 Prospect 64132
Tarson, Solomon S., 5511 W. 85th St., Overland Park, Kan. 66207
Tasker, Charles B., 31st & Wyandotte 64108
Teare, Max E., 600 E. 22nd St. 64108
Terrill, Robert S., 4706 Broadway, 64112
Tesson, James A., 906 Grand Ave. 64106
Theel, Otto W., Jr., 4301 Main 64111
Thiele, George H., 4545 Wornall Rd. 64111
Thomas, Christopher Y., 4320 Wornall Rd. 64111
Thompson, Charles L., 4320 Wornall Rd. 64111
Throne, Elias M., Meyer Blvd. & Prospect 64132
Tice, Wayne K., 1509 W. Truman Rd., Independence 64050
Tillema, David A., 6306 Morningside 64113
Tiojanco, Milagros E., 31st & Wyandotte 64109
Tiojanco, Reynaldo R., 1102-130th, Grandview 64030
Totten, Frederick E., 6700 Troost 64131
Toubes, Daniel B., 8300 Troost 64131
Trimble, George X., 101 Memorial Dr. 64108
Troeh, Melvin R., 10901 Winner Rd., Independence 64052
Trowbridge, Barnard C., 415 E. 63rd St. 64110
Trowbridge, Ellsworth H., Jr., 411 Nichols Rd. 64112
Tuohy, Gerald F., Wornall Rd. at 44th 64111
Turner, Ronald M., 10901 Winner Rd., Independence 64052
Tutera, Dominic F., Plaza Medical Bldg. 64112
Tuthill, Herbert, 1037 W. 71st Terr. 64114
Twin, Edward J., 24th & Cherry 64108
Twyman, Richard A., 4320 Wornall Rd. 64111
Underwood, Dick H., 6700 Troost 64131
Underwood, Johnson, Jr., Professional Bldg. 64106
Unger, Harold, 601 E. 63rd 64110
Upsher, Albert E., Box 2778, 64106
Valins, Eugene, 1815 E. 63rd. 64130
Van Biber, James T., 1612 W. Truman Rd., Independence 64050
Van Buskirk, Terrance E., 5246 St. John 64123
Van Buskirk, William C., 6700 Troost 64131
Van Thullenar, Philip A., 1509 W. Truman Rd., Independence 64050
Vaughn, James W., 2625 W. Paseo 64108
Vera, Enrique, 425 E. 63rd 64110
Vermeire, David A., Wornall Rd. at 44th 64111
Vidals, Victor G., 7540 Troost 64131
Vincent, Jack C., 8300 Troost 64131
Virden, Herbert H., 6700 Troost 64131
Viril, Leonardo C., 4706 Broadway 64112
Vogel, Arthur P., 6400 Prospect 64132
Volk, George E., 6700 Troost 64131
Voth, Harold W., 4320 Wornall Rd. 64111
Wade, Frederick E., Professional Bldg. 64106
Wagner, Paul J., Suite 350, 2929 Baltimore Ave. 64108
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Walker, James C., 2727 Main 64108
Walker, John W., 6400 Prospect 64132
Walker, Orville C., Jr., 10901 Winner Rd. Independence 64052
Wall, Harry C., 751 E. 63rd St. 64110
Wall, Leonard A., 4320 Wornall Rd. 64111
Waltz, Charles A., 534 Blue Ridge Tower 64133
Waltz, James R., 4240 Blue Ridge Blvd. 64133
*Wang, George Y. M., 600 E. 22nd 64108
Wathanacharoen, Suchint, 4320 Wornall Rd. 64111
Watson, Ethel, 1033 W. Maple Ave., Independence 64050
Waxman, David, 4840 Prospect 64130
Waxman, Herbert J., 8300 Troost 64131
Waxman, Jane Z., 4840 Prospect 64130
Webb, Harry E., 330 W. 47th St. 64112
Weidmaier, Edward J., 2929 Baltimore 64108
Weiford, Edward C., 4320 Wornall Rd. 64111
Weir, Robert K., 4240 Blue Ridge Blvd. 64133
Weller, Lynn D., Jr., 6700 Troost 64131
Wells, Donald E., Meyer Blvd. at Prospect 64132
Wells, James A., 3717 Bell 64111
Wells, John H., 3325 Prospect 64128
Wenner, Herbert A., 1710 Independence Ave. 64106
Wertzberger, John J., 4240 Blue Ridge Blvd. 64133
Wheeler, Charles B., 830 W. 53rd. 64112
Wheeler, John H., 4320 Wornall Rd. 64111
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White, George A., 3416 Pasco Blvd. 64109
White, James S., 751 E. 63rd 64110
White, Stoughton F., 4320 Wornall Rd. 64111
White, William E., 6400 Prospect 64132
Whiteman, John R., Suite 545, 2929 Baltimore Ave. 64108
Whitman, Doyle C., 18 E. 11th St. 64106
Whitmore, J. Stewart, Suite 340, 2929 Baltimore Ave. 64108
Whittaker, Charles K., 4320 Wornall Rd. 64111
Whitten, John S., 2116 Sterling, Independence 64052
Wicks, Edwin O., 414 E. 12th 64106
Wien, Irving A., 1103 Grand 64106
Wilber, Robert D., 4320 Wornall Rd. 64111
Wilhelm, Warren F., 6400 Prospect 64132
Wilkinson, Charles B., 4604 Benton Blvd. 64130
Wilkinson, Everett A., 6400 Prospect 64132
Williams, Frank R., 4320 Wornall Rd. 64111
Williams, George P., 10928 Hillcrest
Williams, Joseph C., Jr., 6400 Prospect 64132
Williams, Roland D., 305 W. 43rd St. 64111
Williams, Starks J., 5600 Agnes 64130
Williams, Thomas A., 9601 Manor Rd., Leawood, Kan. 66206
Willits, Lyle G., Professional Bldg. 64106
Willoughby, James W., 1125 Grand 64106
Willoughby, Jean B., 6400 Prospect 64132
Wilson, Clifford C., 4320 Wornall Rd. 64111
Winer, Herbert J., 751 E. 63rd St. 64110
Winer, Nathaniel, 4949 Rockhill Rd. 64110
Winkelman, Esther B., 6400 Prospect 64132
Winston, Bernard H., 601 E. 63rd St. 64110
Wise, George W., 1710 Independence Ave. 64106
Wise, Morris F., 6700 Troost 64131
Withers, Orval R., Plaza Parkway Bldg. 64112
Wolf, Jack W., 425 E. 63rd St. 64110
Woodman, Grey M., 2200 McCoy St. 64108
Woods, Harold V., 1405 W. 40 Hwy., Blue Springs 64015
Woods, S. Dwight, 4320 Wornall Rd. 64111
Woods, Walton C., Medical Dept. TWA, Midcontinent Intl. Airport 64153
Woodward, William W., 4240 Blue Ridge Blvd. 64133
Wortmann, Robert F., 6400 Prospect 64132
Wright, R. Paul, Professional Bldg. 64106
Wu, William Q., 6700 Troost 64131
Wurster, Jerry B., 4320 Wornall Rd. 64111
Wurster, W. Joel, 305 W. 43rd St. 64111
Yohe, Ruth M., 24th & Gillham Rd. 64108
Youll, Donald V., 6700 Troost 64131
Youmans, Ronald A., 415 E. 63rd St. 64110
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Young, Jesse W., 1401 Southwest Blvd., Kansas City, Kan. 66103
Youngblood, James P., 4620 Nichols Parkway 64112
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Zoller, David D., 101 Memorial Dr. 64108
Zwerenz, Bruno H., 600 E. 22nd 64108

JASPER COUNTY MEDICAL SOCIETY
(Joplin)

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Allen, David O., 2525 S. Jackson 64803
Barnett, Norman H., 25th & Jackson 64803
Bentlage, Charles H., 25th & Jackson 64801
Bhend, David P., Medical Arts Bldg. 64801
Birsner, Frank H., 1717 River, Carthage 64836
Bladow, Terrence C., Medical Arts Bldg. 64801
Burch, John E., Medical Arts Bldg. 64801
Butler, Patrick L., 219 Sergeant 64801
Carnes, Victor M., Medical Arts Bldg. 64801
Chase, Ned B., Jr., 114-B Medical Arts Bldg. 64801
Chesney, George W., 25th & Jackson 64803
Cohle, Richard R., Carthage 64836
Craig, Irwin T., P. O. Box 2247 64801
Crawford, Archie L., Frisco Bldg. 64801
Crispell, Lawrence S., 6th & Pearl 64801
Davis, Charles S., 301 Medical Arts Bldg. 64801
DeTar, Burleigh E., 410 Jackson 64801
Eliscu, Juliette M., 2002 Jackson 64803
Esther, John R., Ferguson's Med. Laboratories 64801
Ferguson, Lewis H., Jr., 11608 E. 61st, Kansas City 64133
Ferguson, Ralph L., P.O. Box B, 64801
Ferguson, Robert M., 2015 Jackson 64801
Fritsch, Andrew J., 2920 Pearl 64801
Gardner, Joseph A., 3209 McClelland Blvd. 64801
Gaston, Samuel Lee, 101 Medical Arts Bldg. 64801
Grubb, Paul H., 2509 Jackson 64803
Hall, Marvin F., Medical Arts Bldg. 64801

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Hallaba, M. A. S., 25th & Jackson 64801
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Isbell, Charles H., Carthage 64836
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Kirkman, Robert E., 2529 Jackson 64803
Koehler, John W., Medical Arts Bldg. 64801
Kuhn, John R., Jr., Frisco Bldg. 64801
Longenecker, Joe L., 2503 Jackson 64803
McGonigle, James P., 718 Illinois 64801
McKee, Howard B., 2509 Jackson 64803
McPike, Lloyd H., 2401 Jackson 64801
MacLaughlin, James C., Medical Arts Bldg. 64801
Maddox, John D., 6th & Pearl 64801
Martin, Clarence A., 2815 Wisconsin 64801
Mueller, Adolph R., Jr., Medical Arts Bldg. 64801
O'Brien, James A., 2301 Texas, A-4, 64801
Paddock, Charles S., 3905 Rangeline 64801
Papp, Sandor D., Medical Arts Bldg. 64801
Patterson, Donald R., 2509 Jackson 64803
Patterson, Grover S., 510 S. Main, Carthage 64836
Pence, F. Wendell, 612 S. Main, Carthage 64836
Poor, Carl W., Rt. 1, Box 302, Neosho 64850
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Royce, James J., Sarcoxie 64862
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Schoeberl, Cletus B., Medical Arts Bldg. 64801
Schulte, Gregory A., 2125 Jackson 64803
Scorse, Sidney W., 619 W. 2nd 64801
Shanahan, Mary P., P.O. Box 2125 64801
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Smith, Roland T., Medical Arts Bldg. 64801
Smith, W. Russell, 211 E. Chestnut, Carthage 64836
Straub, David L., Medical Arts Bldg. 64801
Vinson, Harold A., 107 Medical Arts Bldg. 64801
Walker, Paul W., Medical Arts Bldg. 64801
Whitten, M. Foster, 616 W. Centennial, Carthage 64836
Wieman, Harry K., Medical Arts Bldg. 64801
Wilcox, Ruth E., 614a Joplin 64801
Willcoxon, Robert L., Medical Arts Bldg. 64801
Wilson, Alice H., 1923 Sergeant 64803
Wood, George H., 1515 Hazel, Carthage 64836
Wooldridge, Bart F., Medical Arts Bldg. 64801
Young, Calvin C., Jr., Medical Arts Bldg. 64801

JEFFERSON COUNTY MEDICAL SOCIETY

Albano, Benjamin I., 114 Mississippi Ave., Crystal City 63019
Allbee, Roger H., Crystal City 63019
Blank, Michael K., De Soto 63020
Carroll, Richard C., Crystal City 63019
Carron, Joseph F., Arnold 63010
Deles, Vincente D., Crystal City 63019
Donnell, Harold E., De Soto 63020
Donnell, Robert H., Crystal City 63019
Donnell, Thomas A., De Soto 63020
Edwards, Waldo B., 135 W. Adams Ave., Kirkwood 63122
Glasgow, David S., Crystal City 63019
Ibaviosa, Alfred C., Crystal City 63019
Judge, Walter T., Crystal City 63019
Kozal, Francis L., Crystal City 63019
Manalo, Gil B., Jr., 1024 N. Mill Dr., Festus 63028
Mayfield, James L., Crystal City 63019
Rice, Carl E., 731 Mississippi, Crystal City 63019
Romero, Richard N., Crystal City 63019
Rutledge, John F., Festus 63028
Senn, Emmett J., Herculaneum 63048
Yoskit, Harry, Festus 63028

JOHNSON COUNTY MEDICAL SOCIETY
(Warrensburg 64093)

Cooper, R. Lee, Warrensburg
Cooper, Robert S., II, 122 E. Market, Warrensburg
Damron, Oscar H., Warrensburg
Folkner, A. L., Warrensburg
Gonzalez, M. Garza, Warrensburg
Grove, Gulph W., Knob Noster 65336
Hanna, Hugh A., Warrensburg
Harkness, Harry, Warrensburg
Hobbs, George H., Warrensburg
Johnson, Charles S., Warrensburg
Jones, Keith D., Warrensburg
Lederer, Charles M., Warrensburg
Maxson, T. Reed, Warrensburg
Reynolds, M. Wayne, P. O. Box 86, Warrensburg

KNOX COUNTY
(North Central Counties Medical Society)

LACLEDE COUNTY
(Mid-Missouri County Medical Society)

LAFAYETTE-RAY COUNTY MEDICAL SOCIETY

Baldwin, Theodore R., 1236 Jesse James Rd., Excelsior Springs 64024
Best, Robert, 9127 Riggs, Apt. 3, Overland Park, Kan. 66212
Boydston, Catherine, Odessa 64076
Boydston, W. Wayne, Odessa 64076
Brady, Hugh S., Concordia 64020
Brasher, Ben H., Lexington 64067
Cook, Thomas B., Richmond 64085
Cope, Joseph S., Lexington 64067
Crayton, Billy G., Waverly 64096
Crozier, Franklin A., Richmond 64085
Davault, George K., Richmond 64085
Fulkerson, Wilbur E., Higginsville 64037
Goldberg, Isadore E., Braymer 64624
Huber, K. Herbert, Richmond 64085
Kelling, Jordan, Waverly 64096
Koppenbrink, Walter E., Jr., Higginsville 64037
LaHue, William C., 402 N. 15th, Lexington 64067
McFadden, Gene A., Waverly 64096
Pavlu, Robert R., Waverly 64096
Riley, Charles T., Richmond 64085
Vajaranant, Manit, Medical Clinic, Lexington 64076
Ward, Joe, Lexington 64067
Williams, John W., Oak Grove 64075

LAWRENCE COUNTY
(Ozarks Medical Society)

LEWIS-CLARK-SCOTLAND COUNTIES MEDICAL SOCIETY

Davis, Landis Y., Canton 63435

LINCOLN COUNTY
(St. Charles-Lincoln County Medical Society)

LINN COUNTY
(Grand River Medical Society)

LIVINGSTON COUNTY
(Grand River Medical Society)

McDONALD COUNTY
(Ozarks Medical Society)

MACON COUNTY
(Chariton-Macon-Monroe-Randolph County Medical Society)

MADISON COUNTY
(Mineral Area County Medical Society)

MARIES COUNTY
(Mid-Missouri County Medical Society)

MARION-RALLS-SHELBY COUNTY MEDICAL SOCIETY
(Hannibal 63401)

Archer, Perry C., Shelbyville 63469
Bach, Lysle M., 4209 W. Ely Rd.
Buben, Robert W., 2910 St. Mary's Ave.
Burns, Francis R., Tower Plaza, Clinic Rd.
Burton, Dale F., P.O. Box 311
Clisham, John F., B & L Bldg.
Fischer, Thomas J., 2910 St. Mary's
Foreman, Phillip B., Box 311
Francka, W. F., 603 Country Club Dr.
Greene, Harry L., Holmes Bldg.
Hall, Stanley G., 9 Fair Oaks
Hamlin, Wyeth, Box 311
Hinds, R. David, 3 Paulina Dr.
Jayanandaiah, H. P., 4022 Edgewood
Lanning, Robert J., 115 N. 5th St.
Latimer, Walter N. A., 115 N. 5th
Lichty, Charles A., Shelbina 63468
Lucke, Eugene M., 4000 McMasters Ave.
Mann, James K., 4074 Hillside Dr.
Murphy, Bernard L., 2000 Crescent Dr.
Pena-Ramos, Abelardo, B&L Bldg.
Plowman, Edward M., B & L Bldg.
Rapp, Earl L., Box 311
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Steele, James C., Jr., Box 311
Swidnicki, Leonid, 15 Fairway
Walterscheid, John H., 1209 Broadway
Well, Julius W., Palmyra 63461

MERCER COUNTY
(Grand River Medical Society)

MID-MISSOURI COUNTY MEDICAL SOCIETY
(Phelps-Crawford-Dent-Pulaski-Maries-Laclede Counties)

Andreassen, Dimil F., Rolla 65401
Bass, Billy J., Salem 65560
Baumann, Albert R., Steelville 65565
Bealer, Louis A., Lebanon 65536
Butts, James D., Rolla 65401
Carnell, B. M., Camdenton 65020
Carrington, Howard W., Lebanon 65536
Cortez, Willie S., Lebanon 65536
Drake, Avery A., Rolla 65401
Draper, Bernard, 700 W. 11th, Rolla 65401
Elders, Frank A., Jr., Cuba 65453
Feind, Earl E., Rolla 65401
Froelich, R. W., Lebanon 65536
Garrison, T. W., Camdenton 65020
Hammler, Christiana V., St. James 65559
Hart, Martin M., Salem 65560
Heilbrunn, Ilse, 11th & Bishop, Rolla 65401
Hite, Dennis E., Lebanon 65536
Holley, Donald B., Camdenton 65020
Miller, Clyde S., Waynesville 65583
Mitchell, Roy E., Salem 65560
Myers, James M., Rolla 65401
Pendell, Paul W., 215 W. Highway 72, Rolla 65401
Riffel, Gordon W., Bourbon 65441
Russell, Barbara E., Rolla 65401
Smith, Ted P., S&S Acres, Rt. 2, Rolla 65401
Stricker, Emil A., St. James 65559
White, Eugene F., 700 W. 11th, Rolla 65401
Young, Robert B., Rolla 65401

MILLER COUNTY MEDICAL SOCIETY

Buehler, Carl T., Jr., Eldon 65026
Shelton, Edward O., Eldon 65026

MINERAL AREA COUNTY MEDICAL SOCIETY
(St. Francois-Iron-Madison-Washington-Reynolds-Bollinger Counties)

Appleberry, Charles H., Rivermines 63668
Arat, Metin, Farmington 63640
Arguelles, Calixto Ramon, P.O. Box 189, Arcadia, Fla. 33821
Burcham, Tom R., Jr., Farmington 63640
Cancelada, Juan, Farmington 63640
Carleton, Charles E., Jr., Farmington 63640
Chastain, Charles W., Farmington 63640
Crouch, F. Richard, Farmington 63640
Dennis, W. Paul, Flat River 63601
Dent, George W., Jr., 301 W. Liberty, Farmington 63640
Dettmer, Robert F., Ironton 63650
Dierker, H. D., 301 W. Liberty, Farmington 63640
Farmer, Norma D., Farmington 63640
Ford, William, Farmington 63640
Grossman, Marvin, Fredericktown 63645
Hardy, Stanton L., Desloge 63601
Harland, Robert E., Ironton 63650
Hoctor, Emmett F., Farmington 63640
Huckstep, Robert A., Farmington 63640
Hunt, John W., Jr., Farmington 63640
Karraker, Alvan G., Medical Arts Clinic, Farmington 63640
Mardini, Edward E., Bonne Terre 63628
Menne, Marvin C., Ironton 63650
Mullen, Jack, Bonne Terre 63628
Newcomb, Arthur D., 115 S. Wood Ave., Fredericktown 63645
Oliver, George A., Farmington 63640
Osborn, Retus W., III, 3021 Randolph St., Apt. 202, Topeka, Kan. 66611
Pichardo, Javier A., Farmington 63640
Slaughter, Shelby C., Fredericktown 63645
Taylor, Van W., Bonne Terre 63628
Turner, Kirby L., Potosi 63664
Watkins, George L., Jr., Farmington 63640

MISSISSIPPI COUNTY
(SEMO County Medical Society)

MONITEAU COUNTY MEDICAL SOCIETY
(California 65018)

Fulks, Richard B., California
Gallagher, Lionel M., California
Latham, Kenyon S., California

MONROE COUNTY
(Chariton-Macon-Monroe-Randolph County Medical Society)

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* Doctor of Osteopathy.

MONTGOMERY COUNTY MEDICAL SOCIETY

Andersen, Elmer J. T., Montgomery City 63361
Byland, Samuel J., Wellsville 63384
Helm, James O., New Florence 63363

MORGAN COUNTY MEDICAL SOCIETY

(Versailles 65084)

Gunn, Jack, Versailles
Hall, C. Robert, Versailles
Kauffman, Ruth, Versailles
Lyle, Robert R., Versailles
Washburn, J. Loren, Versailles

NEW MADRID COUNTY

(SEMO County Medical Society)

NEWTON COUNTY

(Ozarks Medical Society)

NORTH CENTRAL COUNTIES MEDICAL SOCIETY

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(Kirksville 63501)

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Freeman, Spencer L., Kirksville
Grim, Edward M., 807 Stadium Rd., Columbia 65201
Hilton, Paul E., Kirksville
Isom, Waldo B., Knox City 63446
Stickler, Ralph O., 711 E. Illinois, Kirksville
Tarvydas, Francis, Edina 63537

NORTHWEST MISSOURI MEDICAL SOCIETY

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Bauman, Henry C., Maryville 64468
Byland, Benjamin F., Maryville 64468
Carlin, Albert L., Stanberry 64489
Carpenter, Wallace, Rock Port 64482
Dunshee, Robert E., Maryville 64468
Humphrey, James, Mound City 64470
Imes, Elvin D., Maryville 64468
Jackson, William R., Maryville 64468
Leach, Jon R., Maryville 64468
Matteson, Frank B., Grant City 64456
Morgan, Troy O., Jr., Albany 64402
Niedermeyer, Edward L., Tarkio 64491
Wanamaker, John M., Rock Port 64482
Wempe, G. Raymond, Maryville 64468

OREGON COUNTY

(South Central Counties Medical Society)

OSAGE COUNTY

(Unorganized)

OZARK COUNTY

(South Central Counties Medical Society)

OZARKS MEDICAL SOCIETY

(Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald Counties)

Allison, Richard F., Mt. Vernon 65712
Anderson, Paul B., Neosho 64850
Betz, Richard J., Neosho 64850
Betz, Robert F., Neosho 64850
Blankenship, George W., Neosho 64850
Bowman, Melvin C., Neosho 64850
Brasher, Charles A., Mt. Vernon 65712
Brown, Frederick B., Aurora 65605
Brown, Robert M., Neosho 64850
Capetti, Alex P., Crane 65633
Carter, James R., Neosho 64850
Christianson, Charles S., Mt. Vernon 65712
Coffman, Esther E. L., P.O. Box 591, Lakeworth, Fla. 33460
Crain, James W., Branson 65616
Cruz, Sergio G., Jr., 801 Lincoln, Monett 65708
Dabbs, Wilbur D., Neosho 64850
Donley, Robert R., Monett 65708
Edwards, Francis L., 1422 Seneca, Leavenworth, Kan. 66048
Esparrago, Francisco R., Jr., Monett 65708
Galinsky, Leon, Mt. Vernon 65712
Gardner, Joseph W., 8 Walnut Lane, Kimberling City 65686
Gillispie, Roy, Branson 65616
Glass, William J., Jr., Monett 65708
Glover, Kenneth, Mt. Vernon 65712
Graves, Arthur J., Mt. Vernon 65712
Hamilton, William P., Aurora 65605
Hellweg, Charles E., Mt. Vernon 65712
Huntington, Ione, Mt. Vernon 65712
Kelsey, Kenneth L., Aurora 65605
Kenney, Roy E., Neosho 64850
Kerr, Frank T., Monett 65708
Lentz, Harold C., Neosho 64850
Magness, William C., Branson 65616
Mars, Hartley F., Forsyth 65653
Merideth, Mary Jane, Cassville 65625
Meyers, Rosellen C., Cedar Vale Regional Hospital, P.O. Box 398, Cedar Vale, Kan. 67204
Moore, Allen H., Jr., Branson 65616
Morrison, T. A., Aurora 65605
Olive, George C., Neosho 64850
Roper, Stanley D., Ozark 65721
Schultz, Loraine E., Branson 65616
Shumate, L. St. Clair, Reeds Spring 65737
Spears, Charles A., 1153 W. Hwy. 76, Branson 65616
Sweany, Henry C., 1502 W. Broadway, Columbia 65201
Taylor, Leo T., Neosho 64850
Wommack, Fred L., Crane 65633

PEMISCOT COUNTY MEDICAL SOCIETY

Aquino, Philip J., Caruthersville 63830
Bernard, J. W., Caruthersville 63830
Cain, Charles F., Caruthersville 63830
Cook, Oliver W., Caruthersville 63830
Cooper, Lawrence E., 1274 Hanton, Fort Myers, Fla. 33901
Duckworth, Gordon Lee, Jr., Hayti 63851
Grable, James, Portageville 63873
Gubin, Alan S., Caruthersville 63830
McCoy, Warren R., Caruthersville 63830
McKaskle, Clarence W., Caruthersville 63830
Painter, Andrew E., Portageville 63873
Painter, Lattie B., Jr., Portageville 63873
Shirey, Arnold G., Hayti 63851

PERRY-STE. GENEVIEVE COUNTIES MEDICAL SOCIETY

Carron, Oscar A., Perryville 63775
Craig, Ronald D., Perry Plaza Medical Center, Perryville 63775
DeGenova, Gerard H., Ste. Genevieve 63670
Fairchild, James F., Perryville 63775
Feltz, Lawrence W., Perryville 63775
Fischer, Theodore, Altenburg 63732
Lanning, Richard C., Ste. Genevieve 63670
Lutkewitte, Joseph F., Ste. Genevieve 63670
McDermott, Alfred E., Perryville 63775
Pontillas, Job B., Perryville 63775
Utterman, William F., 614 S. Main, Perryville 63775

PETTIS COUNTY MEDICAL SOCIETY

(Sedalia 65301)

Block, J. E., Box 1444
Boger, James W., 500 W. 16th St.
Braverman, Elliot M., 1501 S. Grand Ave.
Brazos, John C., Smithton 65350
Campbell, Albert J., Jr., 625 E. 13th
Cole, William R., Rt. #1, Smithton 65350
Daum, Harold F., Bothwell Memorial Hosp.
Edmonds, Robert W., 1718 S. Ingram
Edwards, David R., 700 S. Limit
Eldenburg, Donald, 700 S. Limit
Erickson, H. John, 1501 S. Grand
Fisher, Stanley D., 500 W. 16th
Glass, Robert L., 720 S. Beacon
Hopkins, Thomas J., 700 S. Limit
Hopkins, T. Spencer, 1718 S. Ingram
Lamy, John E., 400½ Dal-Whi-Mo
Lowe, Alvin L., 621 W. 16th St.
Maddox, Albert R., 116 W. Main
Owens, John H., Bothwell Memorial Hosp.
Proctor, Donald C., 700 S. Limit
Roberts, Paul A., Sweet Springs 65351
Stauffacher, C. Gordon, 700 S. Limit
Stewart, Robert H., Bothwell Memorial Hosp.
Stockwood, Robert C., 1718 S. Ingram
Van Dyke, Elmer H., 1718 S. Ingram
Walter, Archie L., 500 W. 16th St.
Worley, Charles A., Sweet Springs 65351

PHELPS COUNTY

(Mid-Missouri County Medical Society)

PIKE COUNTY MEDICAL SOCIETY

Christensen, Roger F., Louisiana 63353
Jackson, Edward K., Clarksville 63336
Lewellen, Charles H., Louisiana 63353
Martin, W. Joe, Louisiana 63353
Middleton, John W., Louisiana 63353
Miles, Glenn E., Louisiana 63353
Nickels, Mathew L., 420 Forest Hills Dr., Louisiana 63353
Stuerman, Lawrence G., Louisiana 63353
Wilcoxen, William B., Bowling Green 63334

PLATTE COUNTY MEDICAL SOCIETY

Allen, S. Lloyd, 3809 N.W. 62 Terr., Kansas City 64119
Kimball, Ireland W., 5621 Valley Rd., Kansas City 64151
Sincox, Charles H., 205 Elm St., Washington 63090
Thurman, Hill C., Parkville 64152
Vescovo, Paul C., 4106 Vivion Rd., Kansas City 64119
Wolfram, Philip H., Platte City 64079

POLK COUNTY

(Dallas-Hickory-Polk-Dade County Medical Society)

PULASKI COUNTY

(Mid-Missouri County Medical Society)

PUTNAM COUNTY

(North Central Counties Medical Society)

RALLS COUNTY

(Marion-Ralls-Shelby County Medical Society)

RANDOLPH COUNTY

(Chariton-Macon-Monroe-Randolph County Medical Society)

RAY COUNTY

(Lafayette-Ray County Medical Society)

REYNOLDS COUNTY

(Mineral Area County Medical Society)

RIPLEY COUNTY

(Butler-Wayne-Ripley County Medical Society)

ST. CHARLES-LINCOLN COUNTY MEDICAL SOCIETY

(St. Charles 63301)

Baird, Keim L., 2850 W. Clay St.
Beis, Louis D., 113 A-Okay Dr.
Canty, Eugene J., 114 N. Main
Carpenter, James L., 2 Westbury Square
Clever, Henry W., Jr., 1301 Boonslick Rd.
Commerford, John F., 1301 Boonslick Rd.
Connelly, Michael W., 805 Paddock Dr., Florissant 63033
Creech, Joseph C., Troy 63379
Crider, Russell J., 222 S. 2nd St.
Damron, Edward O., Elsberry 63343
Del Pizzo, Ferdinand, Jr., 1301 Boonslick Rd.
Duling, Gerald J., 2850 W. Clay St.
Dumonceaux, Leonard J., #2 Westbury Square
DuMontier, R. J., O'Fallon 63366
Duncan, David, 2850 W. Clay
Felder, James P., 701 Tompkins
Fleming, Robert J., 120 Clay
Goldkamp, John D., 2850 W. Clay St.
Gore, Glenn L., 2414 W. Clay St.
Hammes, Roman E., 2850 W. Clay St.
Hetlage, Louis P., Troy 63379
Kamada, Tsutomu, 115 W. Pitman, O'Fallon 63366
Keefe, David M., 2850 W. Clay
Keller, Robert, 704 W. Pearce Blvd., Wentzville 63385
Kister, George E., 302 S. 2nd St.
Linsenmeyer, Charles M., 117 First Capitol Dr.
McQueen, Samuel, 100 No. Euclid, St. Louis 63108
Miller, Richard B., 2850 W. Clay
Muenster, Vincent P., 2850 W. Clay St.
Muhm, Harvard Yale, 1301 Boonslick
Neubeiser, Ben L., 2nd & Clay Sts.
Obando, Francisco J., Troy 63379
Perna, Vincent P., 100 N. Euclid Ave. St. Louis 63108
Poggemeier, William H., Jr., 302 S. 2nd St.
Reisa, Ronald C., 2850 W. Clay
Rice, Ronald B., 1301 Boonslick
Ridzon, Thomas J., 2850 W. Clay St.
Roach, Edward A., 2850 W. Clay St.
Roter, Alexander M., #2 Westbury Dr.
Rother, Paul H., 1301 Boonslick Rd.
Sabet, Abdollah A., 141 N. Meramec, Clayton 63105
Schneider, Thomas A., 2850 W. Clay St.
Schuetz, Alfred, 904 Indian Hills
Smoller, Martin B., 2850 W. Clay St.
Soucy, John C., 2850 W. Clay
Tassi, Albert A., 6 Westminster Ct.
Thiele, O. K., #2 Westbury
Towers, Orville W., 1301 Boonslick Rd.
Vafi, Houshang, #2 Westbury
Vart, Gary R., 515 Jefferson
Westerfeld, Roy A., 1301 Boonslick Rd.
Wipfler, Earl J., Jr., 405 Duckett
Yaeger, Gerald A., 2444 W. Clay St.

ST. CLAIR COUNTY

(West Central Missouri Medical Society)

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*Doctor of Osteopathy.

ST. FRANCOIS COUNTY
(Mineral Area County Medical Society)

STE. GENEVIEVE COUNTY
(Perry-Ste. Genevieve Counties Medical Society)

ST. LOUIS MEDICAL SOCIETY
(St. Louis)

Abel, Charles C., 4511 Forest Park Blvd. 63108
Abel, Oliver, III, 4511 Forest Park Blvd. 63108
Abelardo, Miguel L., 5400 Arsenal 63139
Abell, Walter E., 2253 S. 39th St. 63110
Abinoja, Conrado B., 4909 Lindenwood 63109
Abrams, Morris, 4919 Forest Park Blvd. 63108
Abramson, Charles L., 141 N. Meramec 63105
Acker, Harry L., 150 N. Meramec 63105
Ackerman, Lauren V., 600 S. Kingshighway 63110
Adler, Benard C., 4511 Forest Park Blvd. 63108
Agasino, Armela R., 2244 Union Rd. 63125
Agasino, Guadencio L., 5203 Chippewa 63109
Agress, Harry, 8631 Delmar 63124
Aguinaldo, Jaime A., 5535 Delmar 63112
Ahadi, Abd Ul Ahad, 13029 Ambois Dr. 63141
Ahern, Archibald M., 3915 Watson Rd. 63109
Ahlering, George H., 950 Francis Pl. 63105
Ahmad, Bashir, 7933 Elton 63123
Aitken, Louis F., 4989 Barnes Hosp. Plaza 63110
Akyol, Salim, #4 Highfield Lane 63131
Alegre, Jorge M., 5535 Delmar 63112
Allen, Henry C., Clayton Medical Bldg., 63105
Allen, Hollis N., 634 N. Grand 63103
Allen, Melvin A., 3701 Grandel Sq. 63108
Allen, Willard M., 4911 Barnes Hosp. Plaza 63110
Allen, William E., Jr., 720 N. Sarah 63108
Almiron, Osias A., 6150 Oakland Ave. 63139
Alonso, Jose Mario V., Jr., 10110 Hilltop Dr. 63128
Alonso-Yague, P., 330 Northland Medical Bldg. 63136
Altheide, J. Paul, 4605 Lindell 63108
Alvarez, Luis L., 1606 Grattan 63104
Alvis, Bennett Y., 211 N. Meramec 63105
Alvis, Edmund B., 211 N. Meramec 63105
Amado-Ledo, David E., 300 S. Grand Ave. 63103
Amin, Navinkumar, 820A Ravensridge 63119
Amjad, Mohammed T., 1211 Blairshire Dr. Manchester 63011
Anderson, Charles B., 14 Frederick 63122
Anderson, John M., 1420 Gratton 63104
Anglo, Luis B., 3912 Ritz Center 63125
Anstey, George, 10449 St. Charles Rock Rd., St. Ann 63074
Anthony, Elwyn J., 369 N. Taylor Ave. 63108
Arenberg, Irving K., 517 S. Euclid 63110
Arneson, Axel N., 4511 Forest Park 63108
Arney, William G., 16 Hampton Village Plaza 63109
Arnot, John P., 35 N. Central Ave. 63105
Asseff, Carl F., 660 S. Euclid Ave. 63110
Atkins, F. Eliska. 5535 Delmar Blvd. 63112
Auer, Arthur I., 667 Langton 63105
Auer, Edward T., #9 Clayton Terr. 63131
Aufderheide, G. R., 2326 Noll Dr. 63136
Auguste, Jean Meledain, 3530 Laclede 63103
Augustin, Cesar, 17 Friese Dr. 63132
Aulenbacher, Carl E., 1509 E. 3rd Parkway, Washington 63090
Avila, Estrella Z., 936 Brookvale Terr., Manchester 63011
Avila, Patricio C., 936 Brookvale Ter., Manchester 63011
Avioli. Louis V., 216 S. Kingshighway 63110
Aykent, Yavuz, 911 S. Brentwood Blvd. 63105
Aylward, Howard J., 6651 Chippewa 63109
Azuma, Nobutaka, 3901 Tholozan 63116
Azzouni, Joseph N., 542 Gravois Rd., Fenton 63026
Babka, Joseph J., 3845 Federer Pl. 63116
Backer, Matthias H., Jr., 10345 Watson Rd. 63127
Badger, Virginia M., 113 Stoneyside Lane 63132
Bai, Sangzin, 233 Main, Festus 63028
Baigos, Lourdes A., 1515 Lafayette 63104
Bailey, Drennan, 6356 Clayton Rd. 63117
Ballinger, Walter F., II, 4960 Audubon Ave. 63110
Bandle, Donald F., 3801 January 63139
Banet, Samuel R., 83 Pebblebrook Lane 63141
Bannon, Anne E., 1515 Lafayette 63104
Banton, M. Roman, 2917 St. Louis Ave. 63106
Banton, Thomas J., 114 Northland Medical Bldg. 63136
Banton, William C., 1320 Market 63103
Barden, Frank W., 41 Beaver Dr., Creve Coeur 63141
Bardsley, John L., 615 S. New Ballas Rd. 63141
Barner, Hendrick, 1325 S. Grand Blvd. 63104
Barrett, Scott R., 5505 Delmar 63112
Barrios, Francisco, 5641 Potomac 63139
Bartlett, Robert W., 100 N. Euclid 63108
Bartlett, Willard, Jr., 6345 Ellenwood Ave. 63105
Bartnick, Mitchel L., RR #2, Box 38, De Soto 63020
Baue, Arthur E., 216 S. Kingshighway 63110
Bauer, John D., Northland Medical Bldg. 63136
Bauer, Maria, 1935 Edison, Granite City, Ill. 62040
Bauer, Otto, 1935 Edison, Granite City, Ill. 62040
Baula, Armindo G., 609 Jeffersonian Dr. 63125
Baumgarten, Walter, Jr., 5505 Delmar 63112
Beare, J. Byron, 777 S. New Ballas Rd. 63141
Beato, David L., 6305 Devonshire 63109
Beaty, William R., 500 Northwest Plaza, St. Ann 63074
Becker, Bernard, 640 S. Kingshighway 63110
Becker, Edward J., 906 Olive 63101
Becker, George H., 6744 Clayton Rd. 63117
Becker, Stanley C., 16 Hampton Village Plaza 63109
Beckette, Edmund S., 950 Francis Pl. 63105
Beckman, Donald E., 4205 Virginia Ave. 63111
Behrens, Donald T., 3654 S. Grand Blvd. 63118
Behrens, Gerald L., 11271 Hermitage Hill Rd. 63131
Beidle, Raymond J., 500 Northwest Plaza, St. Ann 63074
Belancourt, Dunet F., P. O. Box 4767 63108
Belew, Joe E., 5505 Delmar 63112
Bell, Robert M., 100 North Euclid 63108
Benjamin, Durand, 7430 Virginia 63111
Benson, John F., 3737 N. Kingshighway 63115
Benton, Calvin B., 8052 Amherst Ave. 63130
Berard, Louis N., 812 Olive 63101
Berg, Edward F., 10373 Gosport, Creve Couer 63141
Berg, Leonard, 4989 Barnes Hospital Plaza 63110
Berg, Ralph, 3203 S. Grand 63118
Bergman, Hugo F., 3720 Washington 63108
Bergmann, Dwayne, 6500 Chippewa 63109
Bergner, Grace E., 114 N. Taylor 63108
Berland, Harry I., 812 Olive 63101
Berman, William, 4910 Forest Park Blvd. 63108
Berni, Anthony A., 777 S. New Ballas Rd. 63141
Berry, John W., 9845 Northbridge 63124
Bersche, Bertram L., 23 Beaver Dr. 63141
Bettonville, Paul J., Jr., 6331 Pershing 63130
Biddy, Ralph L., 915 N. Grand Blvd. 63103
Bigger, John F., Jr., 660 S. Euclid 63110
Bilsky, Nathan, 4511 Forest Park Blvd. 63108
Bindbeutel, Donald A., 25 Willow Oak Lane 63122
Binder, Morton A., 4652 Maryland 63108
Bircher, John L., 3932 Federer Pl. 63116
Bird, H. Waldo, 4511 Forest Park Blvd. 63108
Birge, Clifford A., 12 Ridgetop 63117
Bishop, Mary M., 4524 Forest Park Ave. 63108
Bisno, Daniel, 8000 Bonhomme Rd. 63105
Blackwell, Charles R., 8236 Tulane Ave. 63132
Blair, Vilray P., Jr., #9 Stoney Brooks La. 63124
Bleisch, Virgil R., 634 N. Grand 63103
Block, Arnold S., 4511 Forest Park Blvd. 63108
Blount, Lee, Jr., 3737 N. Kingshighway 63115
Bockelman, Clifford H., 2615 Brentwood Blvd. 63117
Boedeker, Roy V., 1035 Bellevue 63117
Boemer, Lilborn C., 49 Clermont Lane 63124
Bolch, Oscar H., Jr., 4911 Barnes Hospital Plaza 63110
Boldizar, Albert G., 2821 N. Ballas Rd. 63131
Boldt, Thomas H., Northland Medical Bldg. 63136
Bollozos, George D., 5091 Clayridge Dr. 63129
Bondurant, Bryce H., 134 Frontenac Forest 63131
Bonfanti, Albert L., P.O. Box 4148, Jennings Station 63136
Boniuk, Isaac, 4989 Barnes Hospital Plaza 63110
Borowsky, Benjamin A., 4910 Forest Park 63108
Boswell, John R., 12918 Topping Estates North Dr. 63131
Bourke, Thomas E., 206 Northland Medical Building 63136
Boveri, Joseph C., 1862 Point Oak Dr. 63131
Bowdern, Edward H., #2 Berkshire La. 63117
Bowen, Stephen F., Jr., 16 Hampton Village Plaza 63109
Bowerman, Harold H., 607 N. Grand 63103
Bowers, James E., 325 N. Kirkwood Rd. 63122
Bowersox, Warren A., 319 N. First St., Pacific 63069
Bowles, William T., 4960 Audubon 63110
Boyarsky, Saul, 4960 Audubon Ave. 63110
Boyd, Arthur M., 1615 S. Grand Ave., 63104
Bradley, Frank R., 7404 Oxford Dr. 63105
Bradley, Richard V., 35 N. Central 63105
Brady, Harry R., 2821 N. Ballas Rd. 63131
Brangle, Robert W., 765 High Hampton Rd. 63124
Bremer, Rita, 2601 Whittier 63113
Bremser, Harry L., 6742 Plainview 63109
Brennan, George A., 3654 S. Grand 63118
Brennan, Robert A., 3654 S. Grand 63118
Brennan, Robert V., 111 N. Taylor 63122
Brereton, Robert L., 206 N. Clay Ave., 63122
Bricker, Eugene M., 4989 Barnes Hospital Plaza 63110
Bricker, Neal S., 660 S. Euclid Ave. 63110
Brodeur, Armand E., 400 Bambury Way 63131
Bronson, Shael S., 777 S. New Ballas Rd. 63141
Brookes, Robert D., 5505 Delmar 63112
Brooks, John E., Barnes Hospital Plaza 63110
Broun, Goronwy O., 1325 S. Grand 63104
Broun, Goronwy O., Jr., 6359 Waterman 63105
Brown, E. Eugene, 7508 Cromwell Dr. 63105
Brown, James M., 11936 Beth Dr. 63126
Brown, Seymour, #2 Ricardo La. 63124
Bruce, Helen L., 3263 Hawthorne Blvd. 63104
Brugger, Thomas, 369 N. Taylor Ave. 63108
Bruns, Kenneth, #1 Salem Estates 63124
Bryan, James H., 950 Francis Pl. 63105
Bryan, William T. K., 950 Francis Pl. 63105
Bucy, James G., 4960 Audubon 63110
Budd, John J., Jr., 9012 Manchester 63144
Burde, Ronald M., 517 S. Euclid 63110
Burford, Thomas H., Barnes Hospital Plaza 63110
Burke, Robert J., 6379 Devonshire 63109
Burkhart, Charles A., Box 396, 63166
Burkhart, Edward F., 141 N. Meramec 63105
Burks, Jess E., 3809 N. Union Blvd. 63115
Burmeister, R. William, 10834 Forest Circle Dr. 63128
Burns, Francis J., 150 N. Meramec 63105
Burr, Donald C., 141 N. Meramic 63105
Burst, Donald O., 6500 Chippewa 63109
Busch, Anthony K., 2101 Sidney St. 63104
Bussmann, Donald W., 4 Wood Acre Rd. 63124
Butcher, Harvey R., Jr., 4960 Audubon 63110
Byrne, John E., 3720 Hampton Ave. 63109
Byrum, Fritz A., 650 Manchester Rd., Ballwin 63011
Cabonce, August L., 751 St. Francois, Florissant 63031
Cabrera, Tomas V., 525 Couch Ave. 63122

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* Doctor of Osteopathy.

Caciolo, Carlo, 3654 S. Grand Blvd. 63118
Cadice, John B., Northland Medical Bldg. 63136
Callahan, Joseph D., 22 Brentmoor Park 63105
Calodney, Martin M., 7247 Delmar 63105
Camel, H. Marvin, 310 Tanglewood Dr. 63124
Campbell, Cecil S., 812 Olive 63101
Campos, Francisco J., 100 N. Euclid 63108
Canaan, Samuel A., Jr., 607 N. Grand 63103
Cannon, Edward M., #20 Briarcliff 63124
Cantor, Harvey E., 1465 S. Grand 63104
Cappel, Powel B., 27 Old Westbury 63119
Carlin, M. Richard, 100 N. Euclid 63108
Carr, Archie D., 59 Fair Oaks 63124
Carranza, Mauro J., Medical Arts Bldg., Hillsboro 63050
Carroll, George A., 3720 Washington 63108
Carroll, Grayson, 1035 Bellevue 63117
Carson, Richard A., 4930 Sunstone Dr., Ballwin 63011
Carter, John F., 29 Berkshire 63117
Cary, John M., 2821 N. Ballas Rd. 63131
Case, Mary E. S., 1302 S. Grand 63104
Casey, Edwin J., 4424 Hampton 63109
Cason, Elbert H., 1704 S. Broadway 63104
Cassel, Melvin A., 1040 N. Mason Rd. 63141
Casson, Henry, Barnes Hospital Plaza 63110
Catalano, J. Denis, 609 Claymont Estates Dr., Ballwin 63011
Catanzaro, Anthony F., 2705 Clifton 63139
Catanzaro, Francis J., 1235 N. Hanley Rd. 63130
Cavanagh, Denis, 1402 S. Grand Blvd. 63104
Cayabyab, Pedro C., 601 S. Brentwood Blvd. 63105
Chadaratana, Phadung, 2601 Whittier 63113
Chamness, James T., #1 St. Andrews Dr. 63124
Chaplin, Hugh, Jr., 509 S. Euclid 63108
Charles, Benjamin H., 5505 Delmar 63112
Charles, Francois R., 5834 Waterman Ave. 63112
Charnas, Raymond M., 1040 Mason Rd., North 63141
Cherre, Anthony J., 6744 Clayton Rd. 63117
Cherre, Charles J., 4511 Forest Park Blvd. 63108
Chesanow, Robert L., 1515 Lafayette Ave. 63104
Cheuk, Shu-sum, 5535 Delmar Blvd. 63112
Chieffi, Margaret, 3720 Washington 63108
Chipongian, Raul A., 4569 Whisper Lake Dr., Florissant 63033
Choi, Byung Ho, 1402 S. Grand 63104
Chou, Yen Ping, Robert Koch Hospital, Koch 63054
Ciapciak, Stanley J., 1502 St. Louis 63106
Clark, Richard E., 4960 Audubon 63110
Claseman, Wilma W., 6154 Westminster Pl. 63112
Cleary, Frank, 4030 Chouteau 63110
Clendenin, Wm. W., 950 Francis Pl. 63105
Coben, Lawrence A., 640 S. Kingshighway 63110
Cohen, Benjamin H., 138 N. Meramec 63105
Cohen, Hillard K., 500 Northwest Plaza, St. Ann 63074
Cole, Robert R., 100 N. Euclid 63108
Collins, Isabella S., Barnes Hospital 63110
Collins, John A., 4960 Audubon Ave. 63110
Collodi, George A., 3555 Longfellow Pl. 63104
Comas, Manuel R., 514 Tenby Terr., Manchester 63011
Comens, Phillip, 6651 Chippewa 63109
Comens, Ruth C., 8826 Woodfox Dr. 63127
Conrad, Adolph H., Jr., 911 S. Brentwood Blvd. 63105
Conrad, Marshall B., 4960 Audubon 63110
Cook, Marvin A., 3220 Parker, Florissant 63033
Cooper, Henry T., 4401 Hampton Ave. 63109
Cooper, James F., 1245 Graham Rd., Florissant 63031
Cooper, Theodore, 5204 W. Cedar Lane, Bethesda, Md. 21104
Cooper, Thomas J., P.O. Box 11653, Clayton Branch 63105
Corday, Robert J., 1465 S. Grand 63104
Cordonnier, Justin, 4960 Audubon 63110
Coronado, Mario A., Rt. #2, Box 796E, Arnold 63010
Corvalan, Juan C., 4989 Barnes Hospital Plaza 63110
Costa, Dominic V., 1212 S. Grand 63104
Costello, Cyril J., 621 S. New Ballas Rd. 63141
Costello, Joseph P., Jr., 57 Berkshire 63117
Costen, William S., 5505 Delmar 63112
Cox, Mary E., 4524 Forest Park Blvd., 63108
Coxe, William S., 600 S. Kingshighway 63110
Craig, Alan G., 1035 Bellevue 63117
Crespin, Stephen R., 660 S. Euclid 63110
Criscione, James R., 4273 Flora Pl. 63110
Criscione, James S., 652 Bambury Way 63122
Crossman, Robert W., 1509 Holly Dr. 63119
Crowell, Hugh C., 9764 Tesson Ferry Rd. 63123
Cruz, Eligio C., 5505 Delmar Blvd. 63112
Cutler, Harold M., 150 N. Meramec 63105
Czebrinski, Edward W., 3701 Grandel Sq. 63108
Daake, John W., 48 Portland Pl. 63108
Dagartzikas, A. K., 12902 Tundra, Town & Country 63131
Dahm, Charles H., Jr., 1009 Julianna Dr., Ballwin 63011
Dahms, Gustave, 1452 S. Grand 63104
Daley, Phillip G., 6651 Chippewa 63109
Dalton, Arthur R., 35 N. Central 63105
Dames, Richard J., 15 York Dr. 63117
Danforth, William H., Chancellor, Washington University 63130
Danis, Peter G., 2821 N. Ballas Rd. 63131
Danis, Richard K., 1401 S. Grand 63104
Dankner, Arnold, 1010 Collingwood Dr., 63132
Dash, Udaya N., 6500 Chippewa 63109
Davis, Gustave L., 216 S. Kingshighway 63110
Davis, Martin W., 911 S. Brentwood Blvd. 63105
Davis, Mary A., 1627 Renoir La. 63141
Deakin, Rogers, 4530 W. Pine Blvd. 63108
De Jesus, Alberto, 6029 Susanview Ct. 63123
Del Valle, Fernando, 150 N. Meramec 63105
Denk, Alan F., 1035 Bellevue 63117
de Ungria, Estelita M., 2601 N. Whittier 63113
de Ungria, Pablo C., Jr., 6744 Clayton Rd. 63117
de Vera, Anson E., 5085 Reynosa Dr. 63128
Devine, John B., 85 Willmore Rd. 63109
DeVivo. Darryle C., 500 S. Kingshighway 63110
Dewald, Paul A., 4524 Forest Park Blvd. 63108
Dewein, Edward G., 8220 Delmar 63124
Dick, Earl, 1426 Boxwood Dr., Blackwood, N. J. 08012
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Marmor, William A., 8600 Delmar Blvd. 63124
Martin, Frederick W., 12 Eversdale Ct. 63124
Martz, John C., 6 Denny Lane 63131
Mattis, Robert D., 21 Brentmoor Pk. 63105
Maxwell, Richard W., 5257 Lindell Blvd. 63108
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Meador, James R., 9 Bellerive Acres 63121
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Medrano, Cresenciano A., 56 Lincord Dr. 63128
Medrano, Lina E., 56 Lincord Dr. 63128
Mendelson, David F., 141 N. Meramec 63105
Meneses, Orlando G., 1857 Bopp Rd. 63131
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Merritt, Burch A., 7309 Natural Bridge Rd. 63121
Merz, Jean J., 12634 Olive St. Rd., Creve Coeur 63141
Meyer, James E., 201 Manchester, Manchester 63011
Meyer, Jay, 911 S. Brentwood, Clayton 63105
Mezera, Raymond A., 7345 Whitehaven 63123
Middleton, Jerry N., 24 Foxboro Rd. 63124
Milder, Benjamin, 211 N. Meramec 63105
Miles, Paul W., 2821 N. Ballas Rd. at Clayton Rd. 63131
Millangue, Consolacion P., 3015 N. Ballas Rd. 63131
Millangue, Rafael M., 2601 N. Whittier 63113
Miller, Charles, Jr., 206 N. Filmore 63122
Miller, Geoffrey W., 4511 Forest Park Blvd. 63108
Minnihan, Robert W., 14535 Marmont Dr., Chesterfield 63017
Molden, Charles A., 7520 Natural Bridge Rd. 63121
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Montes, Arturo C., 1453 McLaran 63147
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Zwirn, Benjamin H., Northland Medical Bldg. 63136

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SCHUYLER COUNTY

(North Central Counties Medical Society)

SCOTLAND COUNTY

(Lewis-Clark-Scotland County Medical Society)

SCOTT COUNTY

(SEMO County Medical Society)

SEMO COUNTY MEDICAL SOCIETY

(Stoddard-New Madrid-Mississippi-Scott Counties)

(Sikeston 63801)

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STODDARD COUNTY

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STONE COUNTY

(Ozarks Medical Society)

SULLIVAN COUNTY

(North Central Counties Medical Society)

TANEY COUNTY

(Ozarks Medical Society)

TEXAS COUNTY

(South Central Counties Medical Society)

VERNON COUNTY

(West Central Missouri Medical Society)

WARREN COUNTY

(Franklin-Gasconade-Warren County Medical Society)

WASHINGTON COUNTY

(Mineral Area County Medical Society)

WAYNE COUNTY

(Butler-Wayne-Ripley County Medical Society)

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WORTH COUNTY

(Northwest Missouri Medical Society)

Component Society Meeting Dates

Audrain County Medical Society—third Tuesday of each month.
Andrew County Medical Society—meets only on call.
Barton-Dade County Medical Society—third Wednesday of each month.
Benton County Medical Society—meets only on call.
Boone County Medical Society—first Tuesday of each month at 7 p.m.
Buchanan County Medical Society—first Wednesday of each month.
Butler-Wayne-Ripley County Medical Society—first Wednesday of each month.
Callaway County Medical Society—third Thursday of each month.
Cape Girardeau County Medical Society—first Monday of each month.
Chariton-Macon-Monroe-Randolph County Medical Society—second Thursday of each month, September through May.
Clay County Medical Society—fourth Tuesday of each month.
Clinton County Medical Society—meets only on call.
Cole County Medical Society—fourth Tuesday of each month.
Cooper County Medical Society—first Monday after the 15th of each month.
Dallas-Hickory-Polk-Dade County Medical Society—first Wednesday of each month.
Dunklin County Medical Society—third Monday of each month.
Franklin-Gasconade-Warren County Medical Society—first Tuesday of each month at the St. Francis Hospital, Washington, at 7 PM.
Grand River Medical Society (Caldwell-Carroll-Livingston, Grundy-Daviess, Harrison, Linn, Mercer, DeKalb)—second Thursday of each month.
Greene County Medical Society—fourth Friday of each month.
Henry County Medical Society—meets only on call.
Howard County Medical Society—meets only on call.
Jackson County Medical Society—March, May, October and December.
Jasper County Medical Society—second Tuesday of each month, September through May.
Jefferson County Medical Society—meets first Wednesday of each month at 7:30 PM.
Johnson County Medical Society—meets only on call.
Lafayette-Ray County Medical Society—second Tuesday of each month at 7:30 PM, at the Victory Cafe, Lexington.
Lewis-Clark-Scotland County Medical Society—meets only on call.
Lincoln-St. Charles County Medical Society—fourth Tuesday of each month.
Marion-Ralls-Shelby County Medical Society—third Tuesday of each month, 7:30 p.m.
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)—fourth Thursday of each month.
Miller County Medical Society—meets only on call.
Mineral Area County Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve)—fourth Thursday of each month.
Moniteau County Medical Society—second Thursday of each month.
Montgomery County Medical Society—meets only on call.
Morgan County Medical Society—meets only on call.
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)—meets only on call.
Northwest Missouri Medical Society (Nodaway-Holt-Atchison-Gentry-North)—second Thursday of each month.
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)—second Tuesday of each month, September through June.
Pemiscot County Medical Society—second Thursday of each month.
Perry County Medical Society—second Thursday of each month.
Pettis County Medical Society—third Monday of each month, September through May.
Pike County Medical Society—third Tuesday of each month.
Platte County Medical Society—meets only on call.
St. Louis County Medical Society—second Wednesday of each month, September through May.
St. Louis Medical Society—third Tuesday of each month, October through May.
Semo County Medical Society (Stoddard, New Madrid, Mississippi, Scott)—third Wednesday of each month, September through May.
South Central Counties Medical Society (Howell-Oregon-Texas-Wright-Douglas-Ozark)—fourth Wednesday of each month.
Webster County Medical Society—meets only on call.
West Central Missouri Society (Bates-Cass-St. Clair-Vernon-Cedar)—second Thursday of each month.

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2105 Lovers La., St. Joseph 64505
Mrs. Raymond J. Bozzo
6 Catawba Pl., Washington 53090
Mrs. George Groce
1 Bartley La., Fulton 65251

MSMA ADVISORY COUNCIL

Gerald L. Miller, M.D.
4706 Broadway, Kansas City 64112

James C. Cope, M.D.
1502 E. Broadway, Columbia 65201

William D. Bradshaw, M.D.
Clinton 64733

NORTH CENTRAL REGION WORKSHOP—Oct. 19-20, 1972—Plaza Inn, Kansas City
FALL CONFERENCE—Oct. 24-25, 1972—Ramada Inn, Columbia
ANNUAL CONVENTION—March 29-April 1, 1973—Chase-Park Plaza Hotel, St. Louis

ORGANIZED COUNTIES AND PRESIDENTS

(Counties Listed Alphabetically)

Audrain
Mrs. John Boyce (Beth)
725 Lake View, Mexico 65265
(314) 581-4644

Boone
Mrs. William Gaunt (Elinor)
1117 S. Glenwood Dr., Columbia 65201
(314) 449-6094

Buchanan
Mrs. Sydney L. Bryant (Bonnie)
1805 N. 33rd, St. Joseph 64506
(816) 233-6037

Butler-Ripley-Wayne
Mrs. George H. Ladyman (Sally)
1403 Lurlyn Rd., Poplar Bluff 63901
(314) 785-1239

Callaway
Mrs. George Groce (Jane)
1 Bartley La., Fulton 65251
(314) 642-6495

Cape Girardeau
Mrs. Thomas C. Sparkman (Betty)
1629 Oxford Dr., Cape Girardeau 63701
(314) 334-3653

Clay
Mrs. Donald A. Fakhoury (Ina May)
4332 N. Central, Kansas City 64116
(816) 453-0715

Cole
Mrs. Harold P. Robb (Betty)
1117 Leslie Blvd., Jefferson City 65101
(314) 636-2032

Cooper
Mrs. E. T. Humphreys (Annie)
1123 Third, Boonville 65233
(816) 882-2202

Dunklin
Mrs. Quentin Tarver (Virginia)
1004 W. Washington, Kennett 63857
(314) 888-3523

Franklin-Gasconade-Warren
Mrs. Raymond J. Bozzo (Ruth)
6 Catawba Pl., Washington 63090
(314) 239-3751

Grand River
Mrs. Albert D. Cross (Vera)
1903 Moberly Rd., Trenton 64683
(816) 359-3210

Green
Mrs. F. T. Moseley (Miriam)
2837 Lomita Circle, Springfield 65804
(417) 883-3326

Jackson
Mrs. W. Jack Stelmach (Pat)
4303 W. 93rd Terr., Prairie Village, Kan. 66207
(913) 318-3223

Jasper
Mrs. Samuel Gaston (Lillian)
2720 Ohio, Joplin
(417) 781-3332

Jefferson
Mrs. Vincente Deles (Joan)
8 Briarwood Dr., Crystal City 63091
(314) 937-8123

Johnson
Mrs. O. H. Damron (Margaret)
308 Jones Ave., Warrensburg 64093
(816) 747-8217

Lafayette-Ray
Mrs. Robert R. Pavlu (Audrey)
Rt. 3, Carrollton 64633
(816) 542-3569

Miller-Morgan-Moniteau
Mrs. J. L. Washburn (Anita)
108 W. Washington, Versailles 65084
(314) 378-4203

Mineral Area
Mrs. Robert Dettmer (Karen)
104 S. Main, Ironton 64683
(314) 546-3693

Pettis
Mrs. Elliot M. Braverman (Barbara)
Rt. 3, Walnut Hills, Sedalia 65301
(816) 827-1348

St. Charles-Lincoln
Mrs. Ronald Hurd (Judy)
115 S. Cardinal La., St. Charles 63301

St. Louis City
Mrs. Thomas Thale (Janette)
351 Meadow Brook, Ballwin 63011
(314) 227-5457

St. Louis County
Mrs. E. E. King (Harriette)
2915 Bellerive Dr., Normandy 63121
(314) 261-6639

Saline
Mrs. James A. Reid (Pat)
102 E. Rea, Marshall 65340
(816) 886-3043

South Central
Mrs. J. N. Wiles (Betty)
1212 W. Broadway, West Plains 65773
(816) 256-2511

AUXILIARIES AND COUNTY MEDICAL SOCIETIES LISTED BY DISTRICTS

FIRST DISTRICT: Andrew,* BUCHANAN, CLAY, Clinton,* GRAND RIVER (Caldwell, Carroll, Daviess, DeKalb, Grundy, Harrison, Linn, Livingston, Mercer), Northwest Missouri (Nodaway, Holt, Atchison, Gentry, Worth),* Platte.*

SECOND DISTRICT: Chariton-Macon-Monroe-Randolph,* Clark-Lewis-Scotland,* Marion-Ralls-Shelby,* North Central (Adair, Knox, Putnam, Schuyler, Sullivan).*

THIRD DISTRICT: ST. LOUIS CITY.

FOURTH DISTRICT: FRANKLIN-GASCONADE-WARREN, JEFFERSON, Lincoln-St. Charles, ST. LOUIS COUNTY.

FIFTH DISTRICT: AUDRAIN, BOONE, CALLAWAY, Camden,** COLE, COOPER, Howard,* MILLER-MORGAN-MONITEAU, Montgomery,* Osage.**

SIXTH DISTRICT: Benton,* Henry,* JOHNSON, LAFAYETTE-RAY, PETTIS, SALINE, WEST CENTRAL (Bates, Cass, Cedar, St. Clair, Vernon).

SEVENTH DISTRICT: JACKSON COUNTY.

EIGHTH DISTRICT: Barton,* Dallas-Hickory-Polk-Dade,* GREENE, JASPER, Ozarks** (Barry, Christian, Lawrence, McDonald, Newton, Stone, Taney),* Webster.*

NINTH DISTRICT: Carter-Shannon,* Mid-Missouri (Crawford, Dent, Laclede, Maries, Phelps, Pulaski),* SOUTH CENTRAL (Douglas, Howell, Oregon, Ozark, Texas, Wright).

TENTH DISTRICT: Bollinger,** BUTLER-RIPLEY-WAYNE, CAPE GIRARDEAU, DUNKLIN, MINERAL AREA (Iron, Madison, Reynolds, St. Francois, Washington), Pemiscot,* Perry-Ste. Genevieve, SEMO (Mississippi, New Madrid, Scott, Stoddard).*

CAPITALIZED COUNTIES—Organized Auxiliary.
* No organized Auxiliary.
** No Medical Society.

STATE PAST-PRESIDENTS—1924-1972

Mrs. George H. Hoxie* (Jackson)**	1924-25
Mrs. M. P. Overholzer* (West Central)	1925-26
Mrs. Arthur B. McGlothlan (Buchanan)** 821 N. 24th, St. Joseph 64506	1926-27
Mrs. W. M. Bickford* (Saline)	1927-28
Mrs. Willard Bartlett, Sr. (St. Louis City) 53 Westmoreland Pl., St. Louis 63108	1928-29
Mrs. M. P. Ravenal* (Boone)	1929-30
Mrs. A. W. McAlester* (Jackson)	1930-31
Mrs. U. J. Busiek (Greene) 1635 E. Walnut, Springfield 65802	1931-32
Mrs. David S. Long (West Central) M. 40, Lake Lotawana, Lee's Summit 64063	1932-33
Mrs. Hudson Talbot (St. Louis City) St. Matthew Manor, 227 Brown's Lane, Louisville, Ky. 40207	1933-34
Mrs. W. H. Goodson* (Clay)	1934-35
Mrs. M. Pinson Neal* (Boone)	1935-36
Mrs. Walter C. Kirchner* (St. Louis City)	1936-37
Mrs. Charles H. Werner* (Buchanan)	1937-38
Mrs. Herbert L. Mantz (Jackson) 1209 Romany Rd., Kansas City 64113	1938-39
Mrs. Paul F. Cole (Greene) 1819 Main, Quincy, Ill. 62301	1939-40
Mrs. S. P. Howard* (Cole)	1940-41
Mrs. J. J. Drace (Cape Girardeau) 903 Bellevue, Cape Girardeau 63701	1941-42
Mrs. Frank L. Davis* (St. Louis City)	1942-43
Mrs. Robert C. Haynes (Saline) 754 Eastwood, Marshall 65340	1943-44
Mrs. J. B. McCubbin* (Callaway)	1944-45
Mrs. Harry M. Gilkey* (Jackson)	1945-46
Mrs. W. E. Koppenbrink, Sr. (Lafayette-Ray) 1303 Main, Higginsville 64037	1946-47
Mrs. W. L. Allee* (Miller-Morgan-Moniteau)	1947-48
Mrs. August A. Werner* (St. Louis City)	1948-49
Mrs. John J. O'Connell (St. Louis County) 1937 O'Connell Ave., Overland 63114	1949-50
Mrs. Gretchen Van Del McClean (Jackson) 3510 Front St., San Diego, Calif. 92103	1950-51
Mrs. W. Carey Cheek (Greene) 1535 E. Meadowmere, Springfield 65804	1951-52
Mrs. Richard A. Sutter (St. Louis County)** 7215 Greenway Dr., University City 63130	1952-53
Mrs. C. Alex McBurney (Saline) 927 Hurt, Slater 65349	1953-54
Mrs. Wilfred E. Martin (Lafayette-Ray) 403 E. 2nd, Odessa 64076	1954-55
Mrs. Frank B. Leitz (Jackson) 308 W. 116th, Kansas City 64114	1955-56

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* Deceased.
** National President.

Mrs. Charles T. Shepherd (St. Louis County) 1956-57
10 Covington Meadows, St. Louis 63131

Mrs. Armand D. Fries (St. Louis City) 1957-58
11 W. Geyer Lane, St. Louis 63131

Mrs. Henry C. Bauman (Nodaway-Holt-Atchison-Gentry-Worth) 1958-59
929 W. 3rd, Maryville 64468

Mrs. Stanley S. Peterson (Greene) 1959-60
721 E. Stanford, Springfield 65804

Mrs. Jordan Kelling (Lafayette-Ray) 1960-61
P. O. Box 171, Waverly 64096

Mrs. Frederick E. Wade (Jackson) 1961-62
413 W. 62nd, Kansas City 64113

Mrs. J. Martyn Schattyn (St. Louis County) 1962-63
9 Huntleigh Downs, Frontenac, St. Louis 63131

Mrs. Lawrence S. Crispell (Jasper County) . 1963-64
911 Kensington, Joplin 64801

Mrs. Delevan Calkins* (St. Louis City) 1964-

Mrs. Ralph Woods Bohnsack (Grand River) . 1964-66
635 Skyline Dr., Brookfield 64628

Mrs. Wallace R. Stacey (Jackson) 1966-67
3407 Shady Bend Dr., Independence 64052

Mrs. John M. Williams (Clay) .. . 1967-68
616 Ridgeway Dr., Liberty 64068

Mrs. E. F. Butler (Buchanan) 1968-69
3110 Douglas, St. Joseph 64506

Mrs. James A. Reid (Saline) . . . 1969-70
102 E. Rea, Marshall 65340

Mrs. William M. Walker (Greene) . 1970-71
845 Southern Hills Blvd., Springfield 65804

Mrs. Frank J. Valach (St. Louis County) . . 1971-72
4 Nassau Circle, Creve Coeur 63141

Roster of Woman's Auxiliary Members by Society

AUDRAIN COUNTY
(Mexico 65265)

Boyce, Mrs. John M., 725 Lakeview
Cottey, Mrs. John H., 203 West Blvd.
Davis, Mrs. Leonard L., Jr., 5 Melody La.
Dwyer, Mrs. Thomas L., 301 N. Cole
Ekern, Mrs. H. Peter, 1415 S. Morris
Garcia, Mrs. Charles L., 8 Melody La.
Jolley, Mrs. J. F., 726 W. Monroe
Jolly, Mrs. Ben N., 1421 S. Jefferson Rd.
Kittelberger, Mrs. George William, 1101 West St.
Lankford, Mrs. Harold D., 9 Park Circle
O'Brien, Mrs. Harry F., 408 Harvard
Parrish, Mrs. J. C., 206 West State, Vandalia, 63382
Rouse, Mrs. David M., 1415 Hickory Hill
Wallace, Mrs. Ed. S., 811 S. Jefferson
Wilbers, Mrs. Raymond, 1004 Concordia

BOONE COUNTY
(Columbia 65201)

Adams, Mrs. Harold, 1040 Queen Ann Dr.
Allen, Mrs. Horace E., 1406 Bass Ave., Apt. 1-C
Allen, Mrs. Joseph, 5813 St. Charles Rd.
Allen, Mrs. Robert, Rt. 2, St. Charles Rd.
Allen, Mrs. William, 508 W. Briarwood La.
Almond, Mrs. Carl, 213 W. Blvd.
Anderson, Mrs. Thomas R., 822 Yale Ave.
Arnold, Mrs. Richard C., 814 Yale
Asel, Mrs. Norman, 1112 S. Glenwood
Baker, Mrs. James M., Rt. 4
Baker, Mrs. Sherwood A., 2620 Walther Ct.
Bingham, Mrs. Hal, 1318 Ridge Rd.
Black, Mrs. Samuel, 300 S. Glenwood
Blackwell, Mrs. Charles, 3109 W. Rollins
Bradford, Mrs. O. F., Frederick Apts.
Brooke, Mrs. Clement E., 901 Edgewood Ave.
Bruner, Mrs. Claude, 208 Edgewood
Bumgarner, Mrs. Roger W., Rt. 1
Burns, Mrs. Thomas, 310 E. Brandon Rd.
Bynum, Mrs. William R., 2606 Luan Ct.
Chalkley, Mrs. Judson, 614 W. Stewart Rd.
Chapman, Mrs. C. Larry, 1916 Ridgemont
Cheek, Mrs. Charles W., 2700 Malibu Ct.
Cochran, Mrs. Donald, 112 Sappington
Colwill, Mrs. Jack M., Countryshire, Rt. 5
Cooper, Mrs. Maurice, 1000 Wayne Rd.
Cope, Mrs. James, Rt. 1, Rocheport 65279
Crowley, Mrs. William J., 7-E. Lathrop
Culley, Mrs. Thomas, 1506 University
Darnell, Mrs. Thomas F. B., 2617 Walther Ct.
Davis, Mrs. David, 801 Crestland Ave.
Denninghoff, Mrs. James C., 1906 Vassar
De Weese, Mrs. Marion, 807 Stewart Rd.
Dexheimer, Mrs. Frank, 1004 Hulen Dr.
Dexter, Mrs. James D., 510 Fairview Rd.
Eggers, Mrs. G. William, Cowan Dr.
Ferneau, Mrs. James, 2218 Bluff Blvd.
Foote, Mrs. Jerry E., 2314 Tulip Ct.
Frueh, Mrs. Bartley, 108 Parkhill Dr.
Fuchs, Mrs. George, Jr., 1026 Hickory Hill Dr.
Galeota, Mrs. William, 1719 Ridgemont
Gammel, Mrs. George, 1602 Stony Brook
Garrett, Mrs. Glen, 102 E. Brandon Rd.
Garrotio, Mrs. Lewis, 814 Hulen Dr.
Gaunt, Mrs. William D., 1117 S. Glenwood
Griffin, Mrs. William T., 822 Greenwood Ct.
Guthrie, Mrs. Richard, 601 W. Briarwood
Hardwicke, Mrs. Henry, Ashland 65010
Harris, Mrs. Hugh S., Jr., 801 Cowan Dr.
Harris, Mrs. Robert J., 2505 E. Broadway
Harrison, Mrs. Winston, 1220 Sunset Dr.
Hart, Mrs. William, 109 Sappington Dr.
Haw, Mrs. Marvin, 1807 Jackson
Hueser, Mrs. James, 604 W. Broadway
Ide, Mrs. Carl, 600 Laurel Dr.
Jackson, Mrs. Robert L., 1103 W. Stewart Rd.
Johnson, Mrs. Richard E., 129 Taylor Ct.
Keown, Mrs. Kenneth, 402 Westmount
Kerr, Mrs. Earl S., 1308 Fieldcrest
King, Mrs. Robert J., 700 Tandy La.
Knutson, Mrs. Carl O., 3404 Condado Ct.
La Chance, Mrs. Leopold, 324 S. Collier, Centralia 65240
Ladenson, Mrs. Roland, 704 Westmount
Landhuis, Mrs. Leo R., Rt. 3
Leech, Mrs. Charles A., 815 W. Stewart Rd.
Lewis, Mrs. Ray B., Rt. 1, Rocheport 65279
Lodwick, Mrs. Gwilyn S., 402 Williamsburg-on-the-Green
Logue, Mrs. John, 912 Crestland
Lomar, Mrs. Roland E., 106 Thistledown
Marco, Mrs. Philip J., 1015 College Park Dr.
Marienfeld, Mrs. Carl, 304 Longfellow La.
Martin, Mrs. Richard H., 1103 Parkridge Dr.
Mayer, Mrs. William D., 1 Ridgeley Rd.
McElroy, Mrs. Glenn, Rt. 5
Miller, Mrs. LeRoy, 32 Bingham Rd.
Mitchell, Mrs. Frank, 2208 Danforth Ct.
Mitchell, Mrs. Lynn D., 200 Defoe Dr.
Mosby, Mrs. Larry D., 107 E. Brandon
Orth, Mrs. O. Gerald, 405 A. Brewer
Payne, Mrs. David, Crestland Ave.
Payne, Mrs. John, Rt. 5, Fulton 65251
Perez-Mesa, Mrs. Carlos, 609 Stewart Rd.
Pfefer, Mrs. Leland U., 2409 Bluff Blvd.
Pingleton, Mrs. William, 113 Tracy Dr.
Politte, Mrs. Lenard, 2401 Hendrix Dr.
Pugh, Mrs. Reginald, 206 S. Glenwood
Rall, Mrs. Kenneth L., 1121 Danforth Dr.
Reddin, Mrs. Patrick C., 1704 Oakwood Ct.
Ridenhour, Mrs. C. E. Gene, 1408 Pearl
Rikli, Mrs. Arthur E., 4003 Faurot Dr.
Rink, Mrs. Richard A., 209 Rothwell Dr.
Rodgers, Mrs. Elrie, 202 S. Glenwood
Ross, Mrs. Gilbert, 300 McNabb Dr.
Russell, Mrs. Garth, 1210 W. Broadway
Scheuber, Mrs. Charles, 505 W. Boulevard S.
Sights, Mrs. Warren P., 309 Tracy Dr.
Silberman, Mrs. Henry K., 1012 Hickory Hill Dr.
Simmons, Mrs. Earl M., 2216 Ridgefield Dr.
Smith, Mrs. J. Ned, Jr., 701 W. Boulevard S.
Smith, Mrs. Joe R., 222 East Parkway
Somers, Mrs. John, Rt. 3
Sosebee, Mrs. Lee, 1507 W. Broadway
Spratt, Mrs. John, Jr., 105 S. Glenwood
Spurgeon, Mrs. Milo, 404 Edgewood
Stephenson, Mrs. Hugh E., 5 Danforth Circle
Stewart, Mrs. William I., 1011 Queen Ann Dr.
Stoy, Mrs. Robert, 811 Canterbury Dr.
Taylor, Mrs. D. Dax, 923 College Park Dr.
Thomas, Mrs. Robert M., 2215 Danforth Ct.
Thompson, Mrs. Ian M., 504 Edgewood
Van Peenen, Mrs. Hubert J., 700 Westmount
Waggoner, Mrs. Charles, 712 Hilltop Dr.
Wakerlin, Mrs. George E., 3002 Bray Ave.
Washington, Mrs. Edward L., 204 W. Stewart Rd.
Watson, Mrs. Trevor F., 2319 Bluff Blvd.
Weiss, Mrs. James, Rt. 2
Wheeler, Mrs. Paul, 405 Thilly
Wilson, Mrs. George P., 918 Westwinds Dr.
Wilson, Mrs. John, 1117 Woodhill Rd.
Windmiller, Mrs. M. Eugene, 210 S. Glenwood
Wolcott, Mrs. Lester, 2417 Beachview Dr.
Woodruff, Mrs. Calvin W., 1021 Lakeside Dr.

BUCHANAN COUNTY
(St. Joseph)

Acuff, Mrs. Robert P., 3015 Miller Rd. 64506
Baker, Mrs. W. C., Savannah 64485
Beheler, Mrs. Edward, 35 Ridgeland Rd. 64505
Benson, Mrs. Scott, 4515 Stonecrest Terr. 64506
Berney, Mrs. Francis, 1225 N. 10th 64501
Bryant, Mrs. Sydney, 1805 N. 33rd 64506
Butler, Mrs. E. F. Butler, 3110 Douglas 64506
Callman, Mrs. George, P. O. Box 655, Fairleigh Station 64506
Chiarottino, Mrs. Josepb, 419 N. 21st 64501
Christ, Mrs. Martin, 414 Benton Dr. 64504
Cox, Mrs. John P., 4208 Miller Rd. 64505
Craig, Mrs. Richard O., 3900 Miller Rd.
Craig, Mrs. Owen, 2408 Colony Sq. E. 64506
Craig, Mrs. Richard O., 3900 Miller Rd. 64505
DuMont, Mrs. Clement, 1905 Francis 64501
Durham, Mrs. S. L., Dearborn 64439
Fischer, Mrs. Martin, 2914 Joslin La. 64506
Fisher, Mrs. Joseph, 2903 Ashland 64506
Forgrave, Mrs. John, 2611 Cornell 64506
Forgrave, Mrs. Leon Paul, Hundley Dr. 64506
Forman, Mrs. George W., 2412 Ashland 64506
Garrison, Mrs. David L., 5101 E. Crest Ct. 64506
Grimes, Mrs. Manning, 815 N. Noyes Blvd. 64506
Gunter, Mrs. Joe S., 5710 Karrasch 64505
Hartigan, Mrs. F. X., 2602 Frederick 64506
Hayes, Mrs. Paul W., 610 N. Noyes Blvd. 64506
Herman, Mrs. Allen, 1909 N. 32nd 64506
Howden, Mrs. T. L., 2723 Francis 64501
Ide, Mrs. Lucien, 1416 N. 25th 64506
Kieber, Mrs. R. W., 1915 N. 33rd 64506
Kline, Mrs. Edmund, 17 Stonecrest 64506
Knepper, Mrs. Paul, 2002 Ashland 64506
Kulowski, Mrs. Jacob, 700 N. 25 64506
Lee, Mrs. Carleton H., 2716 Douglas 64506
Lehman, Mrs. Philip, 91 Stonecrest 64506
Luckinbill, Mrs. Paul, Plattsburg 64477
Maginn, Mrs. R. L., 12 Wishbone Rd. 64506
Marston, Mrs. F. James, 2114 Lovers La. 64505
Martin, Mrs. John, 9 Lindenwood La. 64505
McDaniel, Mrs. John, 1808 N. 29th 64506
McDonald, Mrs. Wilbur, 6 Country Club 64505
McGlothlan, Mrs. A. B., 821 N. 24th 64506
Moen, Mrs. Berwyn, 2214 Carper Dr. 64506
Morse, Mrs. John Philip, 2912 Hampton Rd. 64505
Morse, Mrs. Marvin, 2702 Faraon 64501
Mothershead, Mrs. John, 2630 Fairleigh Terr 64506
Ness, Mrs. Carl, 8 Lindenwood La. 64505
O'Brien, Mrs. Liam, State Hospital, Box 263, 64502
O'Connor, Mrs. William B., 2316 N. 22nd 64505
Ozenberger, Mrs. Larry, West Grogan 64477
Petersen, Mrs. Harold, 2902 Frederick 64506
Pfeffer, Mrs. Robert, 1915 N. 29th 64506
Pifer, Mrs. Lawrence, 2120 Manchester Rd. 64505
Potter, Mrs. Caryl Jr., 1 Pine Rd. 64505
Potter, Mrs. Thompson, 2106 Lovers La. 64505
Prokop, Mrs. Joseph, 29 Stonecrest 64506
Redmond, Mrs. William, 3102 Jule 64501
Riddell, Mrs. Richard, 2610 Indian Trail Dr. 64506
Rogers, Mrs. John, 2502 Ashland 64506
Rosenthal, Mrs. Irwin, 2715 Union 64506
Rost, Mrs. William, 2221 Northwest Ext. 64506
Roundy, Mrs. Collis, Rd. 2 64505
Saferstein, Mrs. T. H., 2903 Sherman 64504
Senne, Mrs. Herbert, 1308 S. Noyes 64507
Senor, Mrs. Earl, 2920 Renick 64507
Shevlin, 840 N. 25th 64506
Smith, Mrs. Clifton, 2821 Ashland 64506
Stallard, Mrs. Donald, 1417 N. 25th 64506
Stevens, Mrs. Edward, 2923 Joslin La. 64506
Sweiger, Mrs. James, Plattsburg 64477
Thompson, Mrs. F. Gregg, III, 2714 Ashland 64506
Villahermosa, Mrs. Juanito, 511 Crestview Dr. 64485
Wadlow, Mrs. Ernest E., 2611 Lovers La. 64506
Waggoner, Mrs. Sharon E., 5820 S. 3rd 64504
Weed, Mrs. Randall W., 1821 Clay 64501
Weinand, Mrs. Ernest, 2002 N. 29th 64506
Whitsell, Mrs. Ora Earl, 2306 Sacramento 64507
Willman, Mrs. Charles, 2105 Lovers La. 64505

BUTLER-WAYNE-RIPLEY COUNTIES
(Poplar Bluff 63901)

Barbour, Mrs. Marvin, 1721 N. Main
Biggs, Mrs. Fred J., Jr., 808 N. Main
Brookreson, Mrs. A. Davis, Lurlyn Rd.
Caldwell, Mrs. Fred, 2008 King Rd.
Carlson, Mrs. E. C., 1260 Barron Rd.

Christy, Mrs. John, 1708 Sylvan Dr.
Engelhardt, Mrs. Robert C., 1513 Rosedale La.
Frazier, Mrs. Andrew, 1337 Meadow La.
Gernstetter, Mrs. S. L., P. O. Box 337
Hansbrough, Mrs. Eugene T., Lurlyn Rd.
Hoja, Mrs. W. Alexander, Rt. 2, Box 16
Hunt, Mrs. John, Jackson Rd.
Ladyman, Mrs. George H., 1405 Lurlyn Rd.
McCauley, Mrs. B. J., 115 Elm
McLane, Mrs. Jerry F., 2107 Jackson Rd.
Miller, Mrs. David V., Rt. 1
Parker, Mrs. Arthur C., Jr., 709 Selma
Ramirez, Mrs. Ricardo, 2022 King Rd.
Raper, Mrs. Charles, Rt. 2, Box 178
Reddy, Mrs. S. K., 2630 N. 14th
Robertson, Mrs. William E., 900 North
Ruff, Mrs. T. Eugene, 1411 Rosedale
Schriver, Mrs. Ronald, Oak Hill Dr.
Tapp, Mrs. Ernest M., 1401 Lurlyn Rd.
Till, Mrs. Bennie, Meadows Rd.
Tuma, Mrs. A. T., 1601 Big Bend Rd.
Varma, Mrs. D. K., 2506 N. Main
White, Mrs. Barry B., 2521 Park Pl.

CALLAWAY COUNTY
(Fulton 65251)

Brown, Mrs. John J., 1304 N. Vine
Cremer, Mrs. William J., State Hospital Dr.
Domke, Mrs. Herbert R., Rt. 2, New Bloomfield
Durst, Mrs. Henry, 1 Ivy Lane
Garner, Mrs. Royal Stanley, Rt. 1, Box 265B
Groce, Mrs. George, 1 Bartley La.
Hill, Mrs. James E., 408 Washington
Jackson, Mrs. Vernon, State Hospital Dr.
Osbourn, Mrs. Richard, 503 Douglas Blvd.
Peterson, Mrs. Donald, State Hospital # 1
Ritterbusch, Mrs. James K., 2 Bartley La.
Sydow, Mrs. Henry, 1411 Kenwood Dr.
Tuttle, Mrs. Jay F., 4 Reed
Wood, Mrs. George F., 1700 Plaza Dr.

CAPE GIRARDEAU COUNTY
(Cape Girardeau 63701)

Alyea, Mrs. James, 1869 Drury La.
Ashley, Mrs. H. V., Jr., Perryville Rd.
Ashley, Mrs. Hugh, Sr., 425 Franklin
Barnes, Mrs. Seth, 1854 Broadway
Blankenship, Mrs. Dale, 907 W. Cape Rock Dr.
Burford, Mrs. Edwin, 2424 Terrie Hill
Campbell, Mrs. Edward, 1100 N. Henderson
Chapman, Mrs. Jean Allen, 1150 N. Henderson
Cozean, Mrs. Charles, 1548 Oak Lei
Crowe, Mrs. John, 1000 N. Henderson
Dinkins, Mrs. James, 1323 Perryville Rd.
Elrod, Mrs. Dennis, 2500 Fairlane
Estes, Mrs. Albert, 714 Broadway
Herbert, Mrs. Charles, 648 Sylvan La.
Holcomb, Mrs. John, 825 N. Fountain
Horne, Mrs. Paul, 1909 Huntington
Hunt, Mrs. Robert, 2021 Sherwood Dr.
Jaeger, Mrs. Joseph, 208 S. High
Johnson, Mrs. Earl Wayne, 1044 N. Henderson
Johnson, Mrs. E. D. Jack, III, 1742 Lake Shore Dr.
Jones, Mrs. David, Chateau Oaks
Kasten, Mrs. Melvin, 1209 Sailor Circle
Kinder, Mrs. James, Rt. 1, Box 135
Kinder, Mrs. Jerry L., 2426 Brookwood
Kratz, Mrs. Paul, 1720 Cecilia
Lovinggood, Mrs. Thomas, 2505 Allendale Dr.
Magaletta, Mrs. George, 957 Rodney Dr.
McDonald, Mrs. Eugene, 225 W. Main, Jackson 63755
McGinty, Mrs. Charles, 2918 Independence
Nunnelly, Mrs. Gordon, 1432 Themis
Nussbaum, Mrs. Paul, 209 Sunset Blvd.
Oehler, Mrs. William, 1617 Themis
Otto, Mrs. Thomas, 511 Alta Vista
Parsons, Mrs. Leroy, Chateau Oaks
Rapp, Mrs. Harold, 1011 N. Henderson
Rawlins, Mrs. Fred, 1607 Bertling
Reynolds, Mrs. Garland, P. O. Box 817
Ridings, Mrs. Harold, 96 E. Cape Rock Rd.
Ritter, Mrs. C. J., 2102 Sherwood
Ritter, Mrs. Raymond, 1257 Rockwood
Seabaugh, Mrs. Loy, 811 E. Rodney
Seabaugh, Mrs. William, Rt. 2, Box 563
Shoss, Mrs. Milton, Rt. 1
Sparkman, Mrs. Thomas, 1629 Oxford Dr.
Stewart, Mrs. Wendell, 1935 Briarwood Dr.
Talbert, Mrs. Clifford, 1947 Robin Hood Circle
Terry, Mrs. James, 2530 Jonquil
Tygett, Mrs. Glenn, 834 Alta Vista
Tygett, Mrs. Joseph, 2112 Woodhaven
Weeks, Mrs. George, 1814 Scott's La.
Wilson, Mrs. Charles, Oak Lei Dr.
Wolff, Mrs. Paul, 90 E. Cape Rock Dr.

CLAY COUNTY
(Kansas City)

Adams, Mrs. Howard, 1905 Snow Drop Circle, Liberty 64068
Allen, Mrs. Louis, 501 S. Woodland Dr. 64118
Armstrong, Mrs. Jay, 4812 Black Swan Dr., Shawnee Mission, Kan. 66216
Arst, Mrs. Herbert, 1201 E. 81st N. 64118
Balhuizen, Mrs. John, 11 Hill 64116
Bates, Mrs. G. Comer, 102 E. 43rd N. 64116
Bowles, Mrs. Richard, 414 N. Ridge, Liberty 64068
Burk, Mrs. E. K., 630 N.W. 42nd Terr. 64116
Castillo, Mrs. Michael, 530 N.W. 43rd Terr. 64116
Chastain, Mrs. Maurice, 3 E. 47th N. 64116
Chiles, Mrs. David, 405 Maple, Smithville 64089
Cook, Mrs. Jerry, 3616 N.E. 67th 64119
Denton, Mrs. Robert, 716 Manzonola, Smithville 64089
Dernoncourt, Mrs. John, 603 Quincy, Smithville 64089
Devine, Mrs. Mark, Jr., 8105 W. 72nd, Shawnee Mission, Kan. 66204
Edwards, Mrs. Theodore, 512 N.W. 43rd Terr. 64116
Fakhoury, Mrs. Donald A., 4332 N. Central 64116
Fotopoulos, Mrs. Chris, 2917 Cheyenne Circle 64116
Fowler, Mrs. 1. Charles, 700 E. Barnes Ave. 64118
Gauer, Mrs. Robert J., 525 N.W. 43rd Terr. 64116
Gilani, Mrs. Abdallah, 410 Superior, Excelsior Springs 64024
Haffner, Mrs. Joel, 6908 N. Overland Dr. 64151
Haley, Mrs. Ted M., 4121 N. Briarcliff Rd. 64116
Hayes, Mrs. Lawrence L., 440 N. Woodland Dr. 64118
Hedges, Mrs. Richard, 1017 Southwind Dr., Excelsior Springs 64024
Hodge, Mrs. Robert, 2214 E. 39th N. 64116
Huddleston, Mrs. Harvey, 402 4th St. Terr. 64089
King, Mrs. Phillip, 429 W. Franklin, Liberty 64068
Kirkland, Mrs. Jerry, 6604 N.W. Overland Dr. 64151
Kuenzi, Mrs. Donald E., 924 S. Woodland Dr. 64118
Langhus, Mrs. Melvin, 104 W. Englewood Dr. 64118
McCormick, Mrs. James, 309 Northcrest Dr. 64116
McPhee, Mrs. William R., 1205 W. 76th 64114
Mullins, Mrs. B. L., 510 N.E. 106th 64155
Parker, Mrs. Robert H., 112 E. 43rd N. 64116
Perico, Mrs. Carlos, 8446 Juniper, Prairie Village, Kan. 66027
Perry, Mrs. Lawrence L., Jr., 6300 N. Lenox 64151
Pileggi, Mrs. Felix A., 424 W. Briarcliff Rd. 64116
Purcell, Mrs. Paul, 4 Carver, Smithville 64089
Reeder, Mrs. Charles C., 3 Maple Circle, Smithville 64089
Revare, Mrs. Paul, 3245 Chippewa Dr. 64116
Robinson, Mrs. Van M., N.W. Briarcliff Ct. 64116
Schertz, Mrs. Truman B., 428 N.W. Briarcliff Rd. 64116
Schultz, Mrs. Robert, 1200 Middlebrook Dr., Liberty 64068
Slaughter, Mrs. Carl, 1001 N. Woodland 64118
Somoza, Mrs. Jose, 15 N.E. Hill 64116
Soper, Mrs. William, 203 Garden La, Excelsior Springs 64024
Spelman, Mrs. Arch E., Bridge St., Smithville 64089
Sportsman, Mrs. Weldon L., Rt. 2, Smithville 64089
Stratman, Mrs. Clarence A., 1500 N.E. 57th Terr. 64118
Thomas, Mrs. Anthony, 5506 Scandia La. 64118
Triplett, Mrs. Daniel A., 1011 Scott Dr., Liberty 64068
Wald, Mrs. Donald, 1608 E. 69th N., Gladstone 64118
Waterman, Mrs. Franklin M., 420 Glendale Rd., Liberty 64068
Werner, Mrs. Dean F., 4609 N. Main 64116
Werner, Mrs. Franklin C., 422 Sagamore La. 64116
Williams, Mrs. John M., 616 Ridgeway Dr. 64068
Williams, Mrs. R. D., 605 Liberty Rd. 64089
Withrow, Mrs. John B., 3925 N. Main 64116
Wright, Mrs. Earl, 4319 Claymont Dr. 64116

COLE COUNTY
(Jefferson City 65101)

Allen, Mrs. James Edwin, 846 Crestmere
Belden, Mrs. E. A., 2124 Lowell
Bohrer, Mrs. Lois A., 817 Monroe, Apt. 3-A
Bowe, Mrs. Ted, 2503 Schellridge Dr.
Bregant, Mrs. Robert, 3435 Country Club Dr.
Courter, Mrs. Larry, Rt. 4
Cox, Mrs. William A., 812 Swifts Highway
Davidsson, Mrs. Walter Flavius, 225 Fredricks La.
Dorris, Mrs. Richard P., 1611 Ridgewood
Doyle, Mrs. Matthew J., 2411 Livingston
Enloe, Mrs. L. David, 1200 Moreland
Exon, Mrs. C. Stuart, 916 Boonville
Fullgrabe, Mrs. Emil A., 1915 Green Meadow Dr.
Garner, Mrs. Lynn M., 403 Meier Dr.
Gordon, Mrs. James, 600 Boonville Rd.
Gove, Mrs. Herman S., 712 Broadway
Guhleman, Mrs. Henry V., Jr., 2018 Greenberry Rd.
Gurnee, Mrs. Landon, 2941 Country Club Dr.
Handler, Mrs. Fred P., 614 Boonville Rd.
Hauser, Mrs. Robert, Schott Rd.
Kanagawa, Mrs. Harold Hajime, 816 Houchin
Kanagawa, Mrs. Harold Kazuo, 314 Crest Dr.
Kelly, Mrs. Marshall W., 1916 Greenberry Rd.
Klebba, Mrs. Larry, 3300 Country Club Dr.
Leslie, Mrs. James, 933 Fairmount
Leslie, Mrs. James, Jr., 1824 Brookside Blvd.
Lloyd, Mrs. Earl L., Riviera Heights, Holts Summit 65043
Matthews, Mrs. John I., 1314 Moreau Dr.
McHaney, Mrs. John W., 1819 Brookside
McKnelly, Mrs. William, 1106 Lee
Meier, Mrs. Francis X., 1913 Hayselton Dr.
Meinershagen, Mrs. Charles W., 138 Forest Hill
Moseley, Mrs. Otis Okle, P. O. Box 248, Osage Beach 65065
Ossman, Mrs. Julian A., 2407 W. Main
Ringo, Mrs. Henry, Centertown 65023
Robb, Mrs. Harold, 1117 Leslie Blvd.
Russell, Mrs. Joseph P., 1717 Greenberry Rd.
Ryan, Mrs. Thomas J., 1109 Moreau Dr.
Sanders, Mrs. Jack Shelby, 1820 Brookside Blvd.
Schmidt, Mrs. Jerome, 806 Boonville
Schokker, Mrs. Johannes, 3463 Hobbs La.
Scott, Mrs. David, 957 Westwood
Sennott, Mrs. John Stephen, 123 Douglas Dr.
Shull, Mrs. G. Donald, 1925 Hayselton Dr.
Siu, Mrs. Kenneth, 108 Belair Dr.
Stauffer, Mrs. Harry Beach, 830 Boonville Rd.
Stricker, Mrs. Harold C., 1205 Moreau Dr.
Sugarbaker, Mrs. Everett D., 2113 W. Main
Summers, Mrs. Joseph, Jr., 2313 W. Main
Tanner, Mrs. Robert, 1910 Greenberry Rd.
Taylor, Mrs. Leon, 1104 W. Main
Tietjen, Mrs. Fred, 7 Greentree Rd.
Van Vranken, Mrs. Eugene Edward, 2037 Tower Dr.
Wallace, Mrs. John, 220 Ridgeway
Watts, Mrs. Byron Edward, 2112 Forest Dr.
Winegar, Mrs. Alvon, 1602 Jefferson Heights

COOPER COUNTY
(Boonville 65233)

Abele, Mrs. William Arved, Krohn Dr.
Avery, Mrs. Willard Bartlett, 10 Oak Valley Rd.

Diekroeger, Mrs. Manuel Louis, Rt. 2
Hata, Mrs. Daikichi, 7 Morningside Dr.
Humphreys, Mrs. Ed. Tristran, 1123 3rd
Stuart, Mrs. Byron McClellan, 910 Shamrock Terr.
Winn, Mrs. George Warren, 607 Poplar
Ziegler, Mrs. William Henry, Weylan Dr.

FRANKLIN-GASCONADE-WARREN COUNTIES

Baker, Mrs. Donald L., Rt. 1, Union 63084
Bozzo, Mrs. Raymond J., 6 Catawba Pl., Washington 63090
Brenner, Mrs. Paul A., 108 W. Washington Ave., Owensville 65066
Eisenmann, Mrs. Benjamin, New Haven 63068
Farrell, Mrs. S. L., 205 Elm, Washington 63090
Hoelscher, Mrs. H. F., Hickory Haven, Warrenton 63383
Mitchell, Mrs. Thomas J., 501 Highway Dr., St. Clair 63077
Moellenhoff, Mrs. Robert, 2315 E. 5th, Washington 63090
Muench, Mrs. Ludwig, 1530 Riverview Dr., Washington 63090
Richardson, Mrs. G. A., Union, Mo. 63084
Richardson, Mrs. W. R., 301 Hwy. 50 West, Union 63084
Schmidt, Mrs. Charles, Box 143, Gerald 63067
Strehlman, Mrs. Benjamin G., 510 West End, Union 63084

GRAND RIVER COUNTIES
(Caldwell-Carroll-Livingston-Grundy-Davies-Harrison-Linn-Mercer-DeKalb Counties)

Allen, Mrs. E. W., 1202 N. Jefferson, Carrollton 64633
Atcheson, Mrs. Windsor, 108 Kavanaugh, Trenton 64683
Bales, Mrs. Eugene, 502 W. 3rd Terr. Carrollton 64633
Bohnsack, Mrs. Ralph, 635 Skyline Dr., Brookfield 64628
Broyles, Mrs. Watkins, Bethany 64424
Cofer, Mrs. Thomas, 1721 Fair, Chillicothe 64601
Conrad, Mrs. Joseph, 1202 Jackson, Chillicothe 64601
Cross, Mrs. Albert, 1903 Moberly Rd. Trenton 64683
Daley, Mrs. Frank, 508 E. Samuel, Hamilton 64628
Dixon, Mrs. John, 1005 Brookfield, Brookfield 64628
Dowell, Mrs. Donald, 1830 Calhoun, Chillicothe 64601
Ellsworth, Mrs. Willard, Cainsville 64632
Fair, Mrs. William, 1705 Calhoun, Chillicothe 64601
Fuson, Mrs. William, 520 Pleasant View, Trenton 64683
Gale, Mrs. Joseph. 1710 Polk, Chillicothe 64601
Galvez, Mrs. Sisenando Patino, Santa Fe St., Marceline 64658
Gary, Mrs. George, 112 W. House, Marceline 64638
Gearhart, Mrs. Merriam, 2100 Beekman, Bethany 64424
Howell, Mrs. Billy, Rt. L., St. Catherine 64677
Mandler, Mrs. George, 1616 Clay, Chillicothe 64601
Platz, Mrs. John, 804 N. Main, Carrollton 64633
Smith, Mrs. Robert, 321 S. Main, Brookfield 64628
Vandiver, Mrs. V. D., 1024 Grandview, Chillicothe 64601

GREENE COUNTY
(Springfield)

Allen, Mrs. Jerry, 1324 S. Fairway Terr. 65804
Ancheta, Mrs. A. A., 2024 E. Rosebrier 65804
Anthony, Mrs. Dallas, 1322 S. Pickwick 65804
Ash, Mrs. Charles, 743 Riverside 65804
Ashley, Mrs. Thomas, 2740 Pythian 65802
Atkinson, Mrs. Thomas, Rt. 9, Box 81-A 65804
Auner, Mrs. Cecil R., 649 McCann 65804
Back, Mrs. Donald, 2852 S. Glendale 65804
Bailey, Mrs. Alan, 2242 Barataria 65804
Baldwin, Mrs. Richard, 2033 Prairie La. 65804.
Barnhill, Mrs. Floyd, 3215 Bellhurst 65804
Beard, Mrs. R. W., 2928 E. Portland 65804
Blades, Mrs. Ross, 2308 Barataria 65804
Bonebrake, Mrs. McDonald, 1443 S. Delaware 65804
Boone, Mrs. Martin, Rt. 2, Box 315 65802
Broaddus, Mrs. Loren, 2725 S. Patterson 65804
Brown, Mrs. Lyman, 1410 N. Rogers 65802
Burkey, Mrs. Jordon, 2405 Sheridan 65804
Busiek, Mrs. Urban, 1635 E. Walnut 65802
Callaway, Mrs. Guy, Jr., 901 E. Portland 65804
Callaway, Mrs. Guy, 1155 S. Delaware 65804
Carr, Mrs. Phillip, 1260 E. Catalpa 65804
Cheek, Mrs. Anne, 1535 E. Meadowmere 65804
Cheek, Mrs. James, 2342 Fitts La. 65804
Christy, Mrs. Raymond, 2738 S. Marlan 65804
Clarke, Mrs. Michael, Rt. 1, Box 442-A 65803
Clary, Mrs. Wm. W., 2259 Mirabeau 65804
Clawson, Mrs. J. W., 2257 Rosebrier 65804
Clayton, Mrs. Edgar, 2446 Brentwood 65804
Cochran, Mrs. Thomas, 2423 Brentwood 65804
Conrad, Mrs. Raymond, 1338 S. Delaware 65804
Cordonnier, Mrs. James, 2320 E. Rosebriar 65804
Corry, Mrs. Francis, 2461 Catalina 65804
Cox, Mrs. Eleanor, 1072 Roanoke 65804
Crawford, Mrs. Oral, Rt. 1, Box 443 65803
Cunningham, Mrs. D. Dean, 1425 S. Delaware 65804
Delzell, Mrs. W. A., Rt. 1, Willard 65781
Dillard, Mrs. Erin M., Rt. 9, Box 425-B 65804
Dolan, Mrs. Daniel, 2413 Claremont 65804
Domann, Mrs. Darrel, 2506 E. Cherokee 65804
Duncan, Mrs. Robert, 1234 E. Loren 65804
Elkins, Mrs. Ronald, 2830 E. Glenwood 65804
Ellis, Mrs. Francis, 2235 E. Glenwood 65804
Ellis, Mrs. Harry, 2375 E. Rosebrier 65804
Evans, Mrs. E. L., 833 E. Elm 65804
Farthing, Mrs. F. R., 1234 E. Walnut 65802
Farthing, Mrs. Gene, 1235 E. Walnut 65802
Ferguson, Mrs. John, 1219 S. Clay 65804
Ferguson, Mrs. Lynn, 4111 Ridge Dr. 65804
Fessenden, Mrs. Ersel, 634 E. Kingsbury 65804
Fitch, Mrs. Max, 2523 S. Marlan 65804
Francis, Mrs. William, 2820 E. Glenwood 65804
Freeman, Mrs. S. F., 1339 S. Pickwick 65804
Gentry, Mrs. Michael, 1242 E. Sunset 65804
Gerdes, Mrs. John, 3041 Lamonta 65804
German, Mrs. Walter A., Jr., 2659 Luster 65804
Giddings, Mrs. Frank, 1211 S. Pickwick 65804
Glynn, Mrs. Robert, 1101 Benton 65802
Gorelick, Mrs. David, 1041 Linwood Terr. 65804
Gose, Mrs. Don F., 1339 S. Delaware 65804
Hall, Mrs. David, 2122 Wayland Dr. 65804
Hall, Mrs. Durward, 2442 S. Fremont 65804
Hanan, Mrs. Ernest, 724 E. Kingsbury 65804
Harmon, Mrs. Ben, Rt. 1, Nixa 65714
Harrison, Mrs. S. W., 3031 Shalimar 65804
Harvey, Mrs. Harold, 2531 Brentwood 65804
H'Doubler, Mrs. Alice, Rt. 7, Box 207, 65802
H'Doubler, Mrs. Charles E., 1421 Bedford Rd. 65804
H'Doubler, Mrs. F. R., Jr., 2445 Melbourne Rd. 65804
Herfkens, Mrs. Kenneth, 2717 S. Marlan 65804
Hills, Mrs. Joe E., 2917 Natural Bridge 65804
Hollis, Mrs. Richard, 2236 Englewood Rd. 65801
Holmes, Mrs. David, 2237 E. Rosebrier 65804
Holmes, Mrs. Daniel E., Rt. 9, 4318 Sunset 65804
Horton, Mrs. James, 1235 E. Delmar 65804
Huewe, Mrs. Douglas, 2204 Clairborne 65804
Hulstra, Mrs. Han F. W., 2652 S. Luster 65804
Ivy, Mrs. H. Berry, 215 E. Sunshine 65804
Jobe, Mrs. Charles, 2415 E. Edgewood 65804
Johnson, Mrs. George, 2349 Edgewood 65804
Johnson, Mrs. Joseph, Jr., 2240 Cherryvale 65804
Johnson, Mrs. Noel, 1851 S. Dollison 65804
Johnson, Mrs. Warford B., 2244 Edgewood 65804
Johnson, Mrs. William, 973 E. Linwood Dr. 65804
Johnston, Mrs. Joseph, 2855 Southern Hills Blvd. 65804
Jones, Mrs. Harold, 3042 Ridge Dr. 65804
Key, Mrs. James, 2278 Englewood 65801
Klingner, Mrs. George, Turners 65765
Klingner, Mrs. George, Jr., Rt. 3, Box 202, Rogersville 65742
Knabb, Mrs. Kenneth, 1229 E. Catalpa, 65804
Langston, Mrs. W. Roland, 1453 S. Fairway 65804
Leagus, Mrs. Charles, 2311 E. Rosebriar 65804
Lemmon, Mrs. G. Bruce, 1462 Virginia 65804
Lewis, Mrs. Noel, Rt. 1, Strafford 65757
Litton, Mrs. Lyle, 3044 Shalimar 65804
Lockhart, Mrs. Charles, 1600 E. Catalpa 65804
Loeb, Mrs. Richard, 2924 S. Barnes 65804
Lorenc, Mrs. Ernest, 2819 Canyon Dr. 65804
Lovett, Mrs. Robert, 2743 S. Luster 65804
Lowe, Mrs. H. A., Jr., 1700 E. Walnut 65802
Lurie, Mrs. Harold, 2440 Skyline 65804
Maple, Mrs. Francis, 2115 Edgewood 65804
Maples, Mrs. Ruth, 836 E. Eastwood, Marshall 65340
McAlhany, Mrs. Howard, 1643 E. Catalpa 65804
Menchetti, Mrs. Don E., Rt. 9 Box 425-A 65804
Michael, Mrs. Harvey, 2847 S. Chantilly 65804
Mill, Mrs. William B., Jr., 1210 S. Weller 65804
Milne, Mrs. Jay L., 1903 E. Meadow Dr. 65804
Moore, Mrs. DeArmand, 956 S. Fremont 65804
Moseley, Mrs. F. Thomas, 2837 Lomita Circle 65804
Napper, Mrs. Marvin, Rt. 1, Ash Grove 65604
Neu, Mrs. Leo T., 3008 Carlisle Circle 65804
Nicholson, Mrs. Ralph L., 2339 E. Berkley 65804
Olson, Mrs. E. Rule, 2645 Wildwood Rd. 65804
Overend, Mrs. Don, 3020 Ridge Dr. 65804
Palcheff, Mrs. Chris L., Rt. 9, Box 400-L 65801
Park, Mrs. William, 815 E. Portland 65804
Parlato, Mrs. George, 2204 Shady Glen 65804
Penninger, Mrs. William, 2246 Claiborne 65804
Peterson, Mrs. Stanley S., 721 E. Stanford 65804
Podrecca, Mrs. Guido, 2550 Brentwood Blvd. 65804
Polk, Mrs. John, 1347 E. Loren 65804
Powell, Mrs. Edwin, 1226 S. Weller 65804
Prater, Mrs. Bill George, 3000 Carlisle Circle 65804
Pruett, Mrs. Paul L., Rt. 9, Box 425 65804
Quinn, Mrs. Paul, 2857 Chantilly 65804
Rinker, Mrs. Carl T., 2930 S. Glendale 65804
Robinson, Mrs. Gary, 2117 E. Montclair 65804
Rosen, Mrs. Max, 900 E. Walnut 75806
Sala, Mrs. Jose, 2901 Utica 65804
Schaeffer, Mrs. Edward, 2218 Shady Glen Dr. 65804
Schreiber, Mrs. Norman J., 3754 E. Cherry 65802
Schroff, Mrs. Carle H., 2448 E. Broadmoor 65804
Schwartz, Mrs. Eugene, 1315 E. Loren 65804
Schweitzer, Mrs. Fred, 2550 Luster 65804
Shackter, Mrs. Bruce, 2534 Barataria 65804
Shane, Mrs. Ramon, 3165 Glenhaven 65804
Siceluff, Mrs. Joseph, Rt. 9, Box 84-M 65804

Simpson, Mrs. E. L., 2133 Meadowview 65804
Snead, Mrs. William, 2532 Sheridan 65804
Spalding, Mrs. David, 2971 Southern Hills Blvd. 65804
Stewart, Mrs. Robert, 2360 E. Grand 65804
Stufflebaum, Mrs. Robert, 2323 E. Rosebrier 65804
Sturtevant, Mrs. Harwood, 2859 Utica 65804
Terry, Mrs. James, 2830 Chambery 65804
Thomasson, Mrs. David, 2311 E. Glenwood 65804
Tillman, Mrs. Walter, 1220 E. Loren 65804
Tombridge, Mrs. T. L., 2830 S. Marlan 65804
Trotter, Mrs. W. Yates, 1243 E. Catalpa 65804
Turner, Mrs. Glen, 1462 S. Dollison 65804
Vensel, Mrs. Lee, Jr., 2255 Meadowview 65804
Waddell, Mrs. Kenneth, 1126 S. Kentwood 65804
Wakeman, Mrs. J. Newton, 1402 Meadowmere 65804
Walker, Mrs. William M., 2845 Southern Hills Blvd. 65804
Warres, Mrs. Herbert, 2614 Englewood Rd. 65801
Webb, Mrs. Richard, 1243 E. Loren 65804
White, Mrs. R. Ned, 3634 Cherry 65804
Whitlock, Mrs. Courtney, 1340 S. Delaware 65804
Williams, Mrs. John, 2245 Fritts La. 65804
Wilson, Mrs. Roy E., Rt. 9, Box 207 65804
Wise, Mrs. Gordon, 2850 Southern Hills Blvd. 65804
Wittmer, Mrs. Samuel, 2314 E. Washita 65804
Wong, Mrs. George, 2908 Avalon 65804
Wood, Mrs. William, Rt. 2, Box 101 65802
Wooldridge, Mrs. Wilfred, 1126 E. Stanford 65804
Wyrsch, Mrs. Leo, 2056 S. Meadowview 65804
Yancey, Mrs. Daniel, 1133 S. Weller 65804

JACKSON COUNTY
(Kansas City)

Aaron, Mrs. George, 5840 Mission Dr., Shawnee Mission, Kan. 66208
Abella, Mrs. Terry K., 8967 E. 62nd Terr. 64133
Abrams, Mrs. Bernard M., 1021 W. 69th 64113
Ackerman, Mrs. Norman, 5300 W. 84th, Shawnee Mission, Kan. 66207
Adelman, Mrs. Arthur, 6305 Aberdeen, Shawnee Mission, Kan. 66208
Agee, Mrs. Loren Glenn, Rt. 1, Rantoul, Kan. 66079
Aks, Mrs. Daniel, 3100 W. 68th, Shawnee Mission, Kan. 66208
Alderman, Mrs. Thomas F., 309 E. 127th 64145
Allan, Mrs. James, 290 N. Winnebago Dr. Greenwood 64034
Allebach, Mrs. Hobart K. B., 4308 93rd, Shawnee Mission, Kan. 66207
Allen, Mrs. William Bayne, 2801 W. 63rd, Shawnee Mission, Kan. 66208
Alsop, Mrs. Webb, Jr., 3604 W. 53rd, Shawnee Mission, Kan. 66205
Altringer, Mrs. Arthur, 5630 Mission Dr., Shawnee Mission, Kan. 66208
Ammatelli, Mrs. F. J., 1235 W. 57th Terr. 64113
Anderson, Mrs. Raymond, 6024 State Line, Shawnee Mission, Kan. 66208
Anderson, Mrs. Richard, 1001 Romany Rd. 64113
Andrus, Mrs. Bailey C., 6508 Overbrook Rd., Shawnee Mission, Kan. 66208
Arbab, Mrs. Ali A., 2415 W. 67th, Shawnee Mission, Kan. 66208
Arms, Mrs. Arnold V., 6421 High Dr., Shawnee Mission, Kan. 66208
Arnold, Mrs. John David, 635 E. 45th 64110
Aronoff, Mrs. Michael, 5702 W. 90th Terr., Shawnee Mission, Kan. 66207
Atcheson, Mrs. Bellfield, 6524 Overhill Rd., Shawnee Mission, Kan. 66208
Atwell, Mrs. Floyd, 630 W. 60th Terr. 64113
Bachman, Mrs. Paul, 1206 W. Truman Rd., Independence 64050
Baer, Mrs. Alvin J., 5800 Howe Dr., Shawnee Mission, Kan. 66205
Baker, Mrs. Philip, 11440 E. 47th 64133
Ball, Mrs. David A., 5307 Mission Woods, Shawnee Mission, Kan. 66205
Ballard, Mrs. V. Bryce, 6618 Rainbow, Shawnee Mission, Kan. 66208
Barelli, Mrs. Pat., 5609 Mission Dr., Shawnee Mission, Kan. 66208
Barker, Mrs. James, 8416 W. 88th Terr. Prairie Village, Kan. 66208
Barnard, Mrs. John, 825 W. 52nd 64112
Barry, Mrs. John, 5510 W. 84th, Shawnee Mission, Kan. 66207
Barry, Mrs. William, Sulgrave Apts., 121 W. 48th 64112
Basantz, Mrs. Fernando, 2025 W. 91st, Shawnee Mission, Kan. 66206
Barloon, Mrs. James, 612 E. 66th 64131
Barnett, Mrs. Gordon, 6568 High Dr., Shawnee Mission, Kan. 66208
Barr, Mrs. Glenn A., 9615 Grandview Rd. 64137
Bass, Mrs. Walter R., 6415 Sterling 64133
Bauer, Mrs. Lafe William, 4818 West 80th, Prairie Village, Kan. 66208
Bay, Mrs. Merrill, Woods Chapel Rd., Blue Springs 64015
Beatty, Mrs. Eugene, 4923 W. 96th Terr., Shawnee Mission, Kan. 66207
Beck, Mrs. Calvin, 6432 High Dr., Shawnee Mission, Kan. 66208
Becker, Mrs. Rolfe, 6501 Wenonga, Shawnee Mission, Kan. 66208
Bell, Mrs. William, 214 Oxford La., Lee's Summit 64063
Bennett, Mrs. J. D., 3216 W. 69th, Shawnee Mission, Kan. 66208
Benoit, Mrs. Hector W., Jr., 2501 W. 64th, Shawnee Mission, Kan. 66208
Berenson, Mrs. Sheldon, 832 W. 63rd 64113
Berlin, Mrs. Roger, 6238 Valley Rd. 64113
Bernreiter, Mrs. Michael, 1246 W. 63rd 64113
Berry, Mrs. G. Neill, 5650 High Dr., Shawnee Mission, Kan. 66208
Berry, Mrs. Maxwell, Sulgrave Apts., 121 West 48th 64112
Bickley, Mrs. James, 2011 W. 81st, Leawood, Kan. 66206
Biggs, Mrs. Alfred, 6551 Wenonga Terr., Shawnee Mission, Kan. 66208
Bikales, Mrs. Victor, 5810 High Dr., Prairie Village, Kan. 66208
Bills, Mrs. Marvin, 3309 W. 68th, Shawnee Mission, Kan. 66208
Black, Mrs. Eugene, 3201 W. 67th, Shawnee Mission, Kan. 66208
Black, Mrs. Thomas, Jr., 7929 Outlook, Shawnee Mission, Kan. 66208
Blim, Mrs. Richard Don, 2209 W. 68th, Shawnee Mission, Kan. 66208
Bohan, Mrs. Peter, 4545 Wornall Rd. 64111
Borenstine, Mrs. Joseph, 7307 Holmes 64131
Borsuk, Mrs. Gregory, 4153 Bryant Dr., Independence 64055
Botwin, Mrs. Arnold, 3600 W. 89th, Shawnee Mission, Kan. 66207
Bourke, Mrs. Timothy, 601 E. Meyer Blvd. 64131
Bowser, Mrs. John, 3701 Madison 64111
Boyer, Mrs. Philip A., Jr., 10246 Cedarbrooke La. 64131
Boyd, Mrs. George, 4810 W. 80th, Shawnee Mission, Kan. 66208
Boylan, Mrs. Peter, 6121 W. 90th Terr., Shawnee Mission, Kan. 66207
Braby, Mrs. Howard, 512 Linwood Terr., Independence 64050
Brams, Mrs. Jack B., 5050 Oak 64112
Braverman, Mrs. Abe Elliott, 2701 W. 68th, Shawnee Mission, Kan. 66208
Brown, Mrs. Adrian J., 12 E. 63rd 64113
Brown, Mrs. Elwyn S., 200 W. 115th 64114
Brown, Mrs. Menzie H., 9421 Ralston 64134
Brumm, Mrs. L. W., 7421 Wyoming 64114
Brown, Mrs. William R., 8717 Rosewood, Shawnee Mission, Kan. 66207
Bruner, Mrs. Robert, 14909 Little Blue Rd. 64136
Buckner, Mrs. Robert, 3507 W. 87th, Leawood 66206
Budke, Mrs. Harold A., 1219 W. 66th Terr. 64113
Buhler, Mrs. Victor, 5212 Belleview 64112
Buie, Mrs. Bruce R., 4601 E. 110th 64137
Bunting, Mrs. Williston, 1231 W. 62nd 64113
Burry, Mrs. V. Fred, 5213 Scranton Dr. 64133
Butcher, Mrs. Robert W., 1101 W. 86th Terr. 64114
Caffrey, Mrs. Raymond J., 1314 W. Red Bridge Rd. 64114
Caldwell, Mrs. John K., 436 E. 65th 64131
Campbell, Mrs. Frederick B., 1032 W. 55th 64113
Capps, Mrs. Eugene C., 7921 El Monte, Shawnee Mission, Kan. 66208
Carlson, Mrs. Hjalmar E., 2709 W. 66th, Shawnee Mission, Kan. 66208
Carmichael, Mrs. Francis, 5841 High Dr., Shawnee Mission, Kan. 66208
Caruso, Mrs. Alfred A., 2018 W. 70th Terr., Shawnee Mission, Kan. 66208
Casady, Mrs. Gilbert, 9830 Aberdeen Dr., Shawnee Mission, Kan. 66206
Case, Mrs. William, 10208 Oakridge Dr., Shawnee Mission, Kan. 66212
Casford, Mrs. Ralph, 1236 W. 72nd 64114
Chambers, Mrs. James, 5500 Belinder Ave., Shawnee Mission, Kan. 66205
Chandler, Mrs. Robert A., 6435 Indian La., Shawnee Mission, Kan. 66208
Chapman, Mrs. James, 9820 Lee Blvd., Leawood, Kan. 66206
Childs, Mrs. Richard, 5325 Mission Wood Terr., Shawnee Mission, Kan. 66206
Clark, Mrs. Irving, 2811 Blue Ridge Ext., Grandview 64030
Cochrane, Mrs. Joseph J., 3301 W. 68th, Shawnee Mission, Kan. 66208
Cockerell, Mrs. Sanford, 3501 S. Crysler, Independence 64050
Coffey, Mrs. Ralph R., 5211 Wornall Rd. 64112
Cohen, Mrs. Harry K., 417 W. 70th 64113
Cohen, Mrs. Robert Alan, 8226 Cherokee Circle, Leawood, Kan. 66206
Colom, Mrs. George A., 4002 W. 56th, Shawnee Mission, Kan. 66205
Coppinger, Mrs. Thomas A., 8 E. 55th Terr. 64113
Cowan, Mrs. George, Lake Quivira 66106
Cox, Mrs. Kenneth E., 5640 Pembroke La., Prairie Village, Kan. 66208
Crocker, Mrs. Albert, 2945 Indiana 64128
Culbertson, Mrs. William, 1253 Huntington Rd. 64113
Curran, Mrs. Desmond, 6626 Wenonga Terr., Prairie Village, Kan. 66208
Dalton, Mrs. Timothy, 11841 Oak 64114
Davidson, Mrs. Ken C., 9700 Wenonga Rd., Leawood, Kan. 66206
Davis, Mrs. Donald, 2501 W. 67th, Shawnee Mission, Kan. 66208
Davis, Mrs. Herbert, 4601 Holmes 64110
Davis, Mrs. Jack, 7110 Harecliff Dr. 64133
Davis, Mrs. Robert C., 333 W. Meyer Blvd., Apt. 614 Kansas City 64113
Demott, Mrs. John D., 4402 Homestead Dr., Prairie Village, Kan. 66208
Dempsey, Mrs. Herbert, 806 Chestnut, Lee's Summit 64063
Dennie, Mrs. Charles, 2600 Verona Rd., Shawnee Mission, Kan. 66208
Dixon, Mrs. V. L., 2501 W. Paseo 64108
Dlabal, Mrs. L. J., 3729 Blue Ridge Blvd., Independence 64052
Dodge, Mrs. Mark, 5820 State Line Rd., Shawnee Mission, Kan. 66208
Dorsch, Mrs. E. H., 3807 Woodland, Independence 64052
Downey, Mrs. James W., 6218 W. 64th Terr., Shawnee Mission, Kan. 66202
Drake, Mrs. Roy, 6600 Outlook, Shawnee Mission, Kan. 66202
Drisko, Mrs. Robert, 2100 Stratford Rd., Shawnee Mission, Kan. 66208
Durnell, Mrs. Monaford, D., 308 Lincolnwood, Lee's Summit 64063
Edmonds, Mrs. D. D., 9009 Mission Rd., Leawood, Kan. 66206
Eiseman, Mrs. Gustave, 6520 Overhill Rd., Shawnee Mission, Kan. 66208
Elias, Mrs. David J., 10311 Sheley Rd., Independence 64052
Ellfeldt, Mrs. Howard, 8544 Roe Blvd., Prairie Village, Kan. 66207
Elliott, Mrs. R. Glenn, 6136 Reinhardt Dr., Shawnee Mission, Kan. 66205
Empson, Mrs. Charles Lee, 7910 Hedges 64138
Engelmann, Mrs. Calvin, 4916 W. 57th Terr., Shawnee Mission, Kan. 66205
Eshelman, Mrs. A. D., 12116 E. 46th 64133
Eubank, Mrs. Dillard, 6020 Elm 64133
Etzenhouser, Mrs. Merrill, 3318 Oxford, Apt. D., Independence 64052
Etzenhouser, Mrs. Russell, 1317 W. College, Independence 64050

Eubank, Mrs. Will, 6113 Lane 64133
Eubank, Mrs. William, 1020 W. 60th Terr. 64113
Evans, Mrs. Lawrence, 1240 W. 69th Terr. 64113
Farley, Mrs. Claude, 3312 W. 87th, Leawood, Kan. 66206
Farney, Mrs. Jacob, 2721 W. 69th, Shawnee Mission, Kan. 66208
Farnsworth, Mrs. Jesse, 5608 Fairway, Shawnee Mission, Kan. 66205
Ferris, Mrs. Carl, 629 W. 70th Terr. 64113
Fitzgerald, Mrs. Robert, 8505 Cherokee Pl., Shawnee Mission, Kan. 66206
Flanders, Mrs. Horace, 5161 W. 75th, Shawnee Mission, Kan. 66208
Flanders, Mrs. Virgil, 2022 W. 91st, Shawnee Mission, Kan. 66206
Flatley, Mrs. John, 827 Huntington Rd. 64113
Flyn, Mrs. James, 5720 High Dr., Shawnee Mission, Kan. 66208
Folck, Mrs. William P., 5804 Linden Rd. N.W., Parkville 64152
Forman, Mrs. Louis, 2801 W. 67th, Shawnee Mission, Kan. 66208
Forsythe, Mrs. Robert, 6457 Verona Rd., Shawnee Mission, Kan. 66208
Fouts, Mrs. Dallas, Sr., 3624 S. Harris, Independence 64052
Fowler, Mrs. James, 200 W. 53rd Terr. 64112
Fowler, Mrs. Fred D., 1231 W. 56th 64113
Fredeen, Mrs. Robert C., 5437 Canterbury Rd., Shawnee Mission, Kan. 66205
Frick, Mrs. J. Paul, 116 Huntington Rd. 64113
Friedman, Mrs. Morris L., 2516 W. 69th, Shawnee Mission, Kan. 66208
Fritzlen, Mrs. Thomas J., 825 W. 63rd 64113
Fuhrman, Mrs. Donald, 3417 W. 68th, Prairie Village, Kan. 66208
Gaines, Mrs. Albert, 4160 Hardesty 64130
Gainey, Mrs. Harold, 4907 Sunset Dr. 64112
Galbreath, Mrs. A. M., 8419 W. 89th, Shawnee Mission, Kan. 66212
Ganley, Mrs. Wm. Coyle, 8400 Overhill Dr. 64138
Garner, Mrs. James H., Jr., 8000 Sagamore Rd., Shawnee Mission, Kan. 66206
Garrison, Mrs. Roy F., 404 W. 67th Terr. 64113
Gauthier, Mrs. Charles, 11319 Summit 64114
Geha, Mrs. Braham, 4 Wycklow, Shawnee Mission, Kan. 66207
Geiger, Mrs. W. A., Jr., 3506 W. 92nd Terr. Leawood, Kan. 66206
Gibson, Mrs. David, 5318 Sunset Dr. 64112
Gillen, Mrs. Billy, 8802 Birch La., Shawnee Mission, Kan. 66207
Gillmor, Mrs. C. Stewart, 420 E. Armour 64109
Ginsberg, Mrs. Norman A., 1220 W. 67th 64113
Gist, Mrs. W. W., 1230 W. 66th 64113
Goldman, Mrs. Stanley, 5734 Windson Dr., Shawnee Mission, Kan. 66205
Goldsich, Mrs. Edward, 5115 W. 81st, Shawnee Mission, Kan. 66208
Goldstein, Mrs. Marvin F., 400 E. 91st 64131
Goodson, Mrs. W. H., Jr., 815 W. 59th 64113
Goolsbee, Mrs. Robert, 6438 Sagamore, Shawnee Mission, Kan. 66208
Gordon, Mrs. Morris, 10527 Walnut Dr. 64114
Gottsch, Mrs. Joseph C., 7094 Granada, Prairie Village, Kan. 66208
Green, Mrs. John R., 3424 Norton, Independence 64052
Green, Mrs. John R., Jr., 3143 Santa Fe Terr., Independence 64055
Growdon, Mrs. John A., 6508 Aberdeen Rd., Shawnee Mission, Kan. 66208
Guastello, Mrs. Mario, 420 E. 80th Terr. 64131
Gullett, Mrs. Charles C., 8815 W. 72nd Terr., Shawnee Mission, Kan. 66204
Habib, Mrs. Henry, 440 E. 74th Terr. 64131
Hager, Mrs. David, 8800 E. 62nd 64133
Hahn, Mrs. Fred, 7037 Crab Apple Lane 64129
Haight, Mrs. John M., 5609 Blue Ridge Blvd. 64133
Hall, Mrs. Ralph R., 3900 W. 57th, Shawnee Mission, Kan. 66205
Halperin, Mrs. Phillip, 6715 W. 52nd Pl. 66222
Hamel, Mrs. Herbert, 6441 High Dr., Shawnee Mission, Kan 66208
Hamil, Mrs. Lawrence W., 9622 Sagamore, Leawood, Kan. 66206
Hardy, Mrs. H. M., 6606 Overhill Rd., Shawnee Mission, Kan. 66208
Harrin, Mrs. William, 119 W. 116th 64114
Hartwig, Mrs. Fred, 5204 Pawnee Dr., Shawnee Mission, Kan. 66205
Hartwig, Mrs. Raymond, 3110 Tomahawk, Shawnee Mission, Kan. 66208
Hausheer, Mrs. Herman, 12900 E. 36th Terr., Independence 64050
Haynes, Mrs. Solon, 5306 Holmes 64110
Helman, Mrs. Richard, 6540 Wenonga Rd., Shawnee Mission, Kan. 66208
Herdoiza, Mrs. Alfonso W., 7015 W. 66th Terr., Shawnee Mission, Kan. 66202
Herrman, Mrs. George, Apt. 6, 10855 State Line 64114
Hervey, Mrs. William H., 5128 Clark Dr., Shawnee Mission, Kan. 66205
Hibbard, Mrs. Blaine, 5211 Sunset Dr. 64112
Hickerson, Mrs. William, 4207 S. Crysler, Independence 64050
Higgins, Mrs. Ronald A., A-13 Lake Tapawingo, Blue Springs 64015
Hill, Mrs. J. H., 8115 Meadow La., Leawood, Kan. 66206
Hink, Mrs. Fred, 524 Hardy, Independence 64053
Hoadley, Mrs. William, 9625 Beverly, Shawnee Mission, Kan. 66212
Hodgson, Mrs. Frank, 1049 W. 55th 64113
Hoech, Mrs. George P., Jr., 11724 Central 64114
Hoeper, Mrs. Samuel, Box 169, Grandview 64030
Hoffman, Mrs. Alan L., 2310 E. Meyer Blvd. 64132
Hollinger, Mrs. Lloyd, 4403 W. 93rd Terr., Shawnee Mission, Kan. 66207
Hollweg, Mrs. Kenneth, 808 W. Meyer Blvd. 64113
Holton, Mrs. Edward, 2817 Westport Rd., Independence 64052
Huet, Mrs. Raul, 8632 Juniper La., Shawnee Mission, Kan. 66207
Hunt, Mrs. Claude J., 615 W. 56th 64113
Hunt, Mrs. Thomas, 6636 Ensley La., Shawnee Mission, Kan. 66208
Hunter, Mrs. Martin, 4100 W. 93rd, Shawnee Mission, Kan. 66207
Hunzicker, Mrs. Warren, 1248 Stratford Rd. 64113
Huse, Mrs. William J., II, 8713 Burch La., Shawnee Mission, Kan. 66207
Ingham, Mrs. Walton C., 9723 Overbrook Rd., Leawood, Kan. 66206
Irvine, Mrs. John, 2500 Red Bridge Terr. 64131
Irwig, Mrs. Fred, 5109 W. 87th, Shawnee Mission, Kan. 66207
Ise, Mrs. Frank A., 6700 W. 66th Terr., Shawnee Mission, Kan. 66202
Jacob, Mrs. Walter, 5301 W. 83rd Terr., Shawnee Mission, Kan. 66207
Jacobs, Mrs. Morton, 6416 Verona Rd., Prairie Village, Kan. 66208
Jacobs, Mrs. Walter Harvey, 6656 Milhaven, Shawnee Mission, Kan. 66202
Janes, Mrs. Donald, 4502 W. 82nd Terr., Shawnee Mission, Kan. 66208
James, Mrs. Otis E., Jr., 2810 W. 68th, Shawnee Mission, Kan. 66208
Jarvis, Mrs. James, 600 W. 57th 64113
Jenab, Mrs. Morteza, 5964 Overhill, Shawnee Mission, Kan. 66208
Johnson, Mrs. Dallas, 5321 W. 96th Terr., Shawnee Mission, Kan. 66207
Johnson, Mrs. Joseph, 707 W. Montcrew Dr. 64114
Johnson, Mrs. Richard, 9305 Wenonga, Shawnee Mission, Kan. 66206
Johnstone, Mrs. Paul N., 117 W. 69th Terr. 64113
Jonas, Mrs. Harry, 11711 Markham, Independence 64052
Jones, Mrs. Gale O., 817 W. 61st Terr. 64113
Jones, Mrs. Samuel, 9915 Cherokee La., Shawnee Mission, Kan. 66207
Jones, Mrs. T. Reid, 6341 Roe Rul, Shawnee Mission, Kan. 66208
Justus, Mrs. John, 5521 Howe Dr., Shawnee Mission, Kan. 66205
Kanarek, Mrs. Joseph, 6112 W. 87th Terr., Leawood, Kan. 66206
Kandt, Mrs. Ray E., Jr., 8900 Maple Dr., Shawnee Mission, Kan. 66207
Kantor, Mrs. Julius M., 6708 Hugh Dr., Shawnee Mission, Kan. 66208
Kantor, Mrs. Samuel, 3604 W. 87th, Leawood, Kan. 66206
Katf, Mrs. Nichola Y., 11812 Central 64114
Keeler, Mrs. James E., 422 E. Meyer 64131
Kelling, Mrs. Douglas, 7705 W. 102nd, Shawnee Mission, Kan. 66212
Keltner, Mrs. Raymond, 8900 Pawnee La., Leawood, Kan. 66206
Kendall, Mrs. Charles A., 604 Red Rd., Independence 64055
Kennard, Mrs. G. Keith, 3658 Madison 64111
Kent, Mrs. Bela, 5839 Cherokee Dr., Shawnee Mission, Kan. 66205
Kettner, Mrs. Edward G., 6510 Milhaven, Shawnee Mission, Kan. 66202
Kiene, Mrs. Richard, 6429 Overbrook, Shawnee Mission, Kan. 66208
Kindred, Mrs. Lynn, 4606 W. 82nd Terr., Prairie Village, Kan. 66208
Kitchen, Mrs. W. M., 2700 W. 68th, Shawnee Mission, Kan. 66208
Klein, Mrs. E. H., 7011 Roe, Prairie Village, Kan. 66208
Knight, Mrs. Lyle, 108 Madison La., Lee's Summit 64063
Knoch, Mrs. H. Kermit, 6606 Willow La., Shawnee Mission, Kan. 66208
Koontz, Mrs. Paul G., 301 W. 54th 64112
Kranson, Mrs. Seymour, 11 Hawthorne Pl., Independence 64052
Kuruvilla, Mrs. George, 9628 Shepherds Dr. 64131
Kyger, Mrs. John, 3612 Blue Ridge, Independence 64052
Lamar, Mrs. Frederick C., 803 W. 48th, Apt. 12 64112
Lamar, Mrs. Robert F., 800 W. 53rd Terr. 64112
Lambie, Mrs. Rodger W., 10317 Grant La., Shawnee Mission, Kan. 66212
Lampton, Mrs. Lawrence, 5516 Wyandotte 64113
Landis, Mrs. George K., 10115 Pawnee La., Shawnee Mission, Kan. 66206
Lanning, Mrs. Richard J., 213 W. Greentree La. 64116
Latham, Mrs. Raymond, 3008 W. 67th, Shawnee Mission, Kan. 66208
Lauer, Mrs. Daniel, 8718 Cherokee La., Leawood, Kan. 66206
Layle, Mrs. John, 5500 Chadwick, Shawnee Mission, Kan. 66205
Lee, Mrs. Henry, 9821 Sagamore Rd., Leawood, Kan. 66206
Lee, Mrs. King Y., 10811 W. 100 St. Terr., Shawnee Mission, Kan. 66214
Leitch, Mrs. Cecil, Rt. 2, Box 222, Blue Springs, 64015
Lemoine, Mrs. Albert, 9200 High Dr., Leawood, Kan. 66206
Lentz, Mrs. Clark, 2600 W. 69th, Shawnee Mission, Kan. 66208
Leo, Mrs. William, 4505 W. 66th, Prairie Village, Kan. 66208
Lewis, Mrs. Revis, 1001 W. 56th 64113
Lieberman, Mrs. B. Albert, Jr., 1229 W. 67th 64113
Lindgren, Mrs. Carleton, 12805 E. 38th, Independence 64055
Link, Mrs. Vance, 1201 W. 36th, Independence 64050
Linville, Mrs. Howard, 9905 Cherokee La., Leawood, Kan. 66206
Littlejohn, Mrs. Robert, 5215 W. 63rd Terr., Shawnee Mission, Kan. 66208
Long, Mrs. R. Stacy, 3343 Blue Ridge Blvd., Independence 64052
Lotite, Mrs. Carlos A., 8916 Horton, Overland Park, Kan. 66207
Loutzenhizer, Mrs. James, 404 E. 74th 64131
Lowell, Mrs. Paul, 4742 Liberty 64112
Lyddon, Mrs. H. R., Jr., 1221 W. 67th 64113
Lytton, Mrs. George J., 617 W. 49th 64112
Maben, Mrs. Sam, 8954 E. 60th Terr. 64133
Maccubbin, Mrs. Don A., 4820 W. 81st, Shawnee Mission, Kan. 66208
MacGee, Mrs. Edwin, 10921 W. 99th Pl., Shawnee Mission, Kan. 66214
Macnaughton, Mrs. Ralph, 7317 High Dr., Shawnee Mission, Kan. 66208
Mangels, Mrs. Kenneth A., Sr., 1103 W. 36th Terr., Independence 64050
Mantz, Mrs. Herbert, 1209 Romany Rd. 64113
Marks, Mrs. Mark M. 6437 Summit 64113

Martin, Mrs. Clyde, 5531 E. Mission Dr., Shawnee Mission, Kan. 66208
Masucci, Mrs. Joseph, 1012 W. 96th Terr. 64114
Mayer, Mrs. John H., Jr., 5739 Windsor Dr., Shawnee Mission, Kan. 66205
McCallister, Mrs. Ben, 6431 Norwood, Shawnee Mission, Kan. 66212
McCanse, Mrs. Andrew, 1232 W. 60th Terr. 64113
McClanahan, Mrs. Robert, 6456 Overbrook Dr., Shawnee Mission, Kan. 66208
McConchie, Mrs. James, Rt. 1, Box 223-B, Grain Valley 64029
McDonnell, Mrs. John, 5411 Central 64112
McFarland, Mrs. Donald, 5830 High Dr., Shawnee Mission, Kan. 66208
McIntosh, Mrs. Donald E., 12709 Oakmont Dr. 64145
McCannon, Mrs. Paul, 2201 Arno Rd., Shawnee Mission, Kan. 66208
McKee, Mrs. Wallace, 2020 Stratford, Shawnee Mission, Kan. 66208
McKnelly, Mrs. W. V., 7228 Hadley, Shawnee Mission, Kan. 66204
McMillan, Mrs. Thomas, 8201 Dearborn, Shawnee Mission, Kan. 66208
Melgaard, Mrs. S. Ross, 1012 W. 61st 64113
Meyer, Mrs. Paul W., 5160 Sunset Dr. 64112
Meyers, Mrs. Harold, 1901 Brookwood Rd., Shawnee Mission, Kan. 66208
Miles, Mrs. George, 2231 W. 63rd St., Shawnee Mission, Kan. 66208
Milgram, Mrs. Byron A., 1209 W. 66th Terr. 64113
Miller, Mrs. Clint L., 211 Oxford Dr., Lee's Summit 64063
Miller, Mrs. Gerald L., 836 W. 51st 64112
Miller, Mrs. Max I., 4001 W. 66th, Prairie Village, Kan. 66208
Miller, Mrs. Wilson Herrick, 6400 Verona Rd., Shawnee Mission, Kan. 66208
Mitchell, Mrs. John D., 6014 Lockton La., Shawnee Mission, Kan. 66205
Mitra, Mrs. Nirmal, 2007 W. 81st Terr., Leawood, Kan. 66206
Mixson, Mrs. William, 6501 Sagamore Rd., Shawnee Mission, Kan. 66208
Montello, Mrs. Samuel A., 4109 Delmar Dr., Prairie Village, Kan. 66208
Mooney, Mrs. Marcel L., 6439 Ensley La., Prairie Village, Kan. 66208
Moore, Mrs. Robert A., 10818 West 102nd, Shawnee Mission, Kan. 66214
Moreano, Mrs. Armando, 3920 W. 57th, Shawnee Mission, Kan. 66205
Morgan, Mrs. David, 6513 Jefferson 64113
Morris, Mrs. Joseph H., 5017 George 64133
Morrow, Mrs. Raymond L., 17 W. 69th 64113
Moss, Mrs. Paul, 8701 Walmer, Shawnee Mission, Kan. 66212
Mosser, Mrs. Robert, 6505 W. 87th, Overland Park, Kan. 66212
Mueller, Mrs. M. J., 11723 Central 64114
Mullen, Mrs. Leo M., 1900 W. 68th, Shawnee Mission, Kan. 66208
Murphy, Mrs. Edward S., 421 W. 68th 64113
Murphy, Mrs. Robert J., 6428 High Dr., Shawnee Mission, Kan. 66208
Murray, Mrs. W. Lee, 10330 Ash, Shawnee Mission, Kan. 66207
Naime, Mrs. Mansour J., 9625 Linden Dr., Shawnee Mission, Kan. 66207
Needels, Mrs. Orval, 207 W. 67th Terr. 64113
Nesselrode, Mrs. John H., 12000 Marbec Trail, Independence 64052
Neumann, Mrs. James, 5850 Pembroke, Shawnee Mission, Kan. 66208
Newman, Mrs. Robert L., 1024 Huntington 64113
Nickson, Mrs. Charles E., Jr., 4425 Larson, 64133
Noback, Mrs. R. K., 628 W. 67th 64113
Noltensmeyer, Mrs. Milton, 3305 W. 50th Terr., Shawnee Mission, Kan. 66205
O'Hearne, Mrs. John J., 5529 High Dr., Shawnee Mission, Kan. 66208
O'Neil, Mrs. James H., 2111 W. 69th Terr., Shawnee Mission, Kan. 66206
Osborne, Mrs. Jere O., 644 W. 69th Terr. 64113
Overesch, Mrs. Harry B., 10804 Grandview Rd. 64137
Ozar, Mrs. Milton B., 1206 W. 62nd 64113
Padfield, Mrs. Earl G., 1900 W. 61st Terr., Shawnee Mission, Kan. 66208
Pakula, Mrs. Sidney F., 333 W. Meyer 64113
Parker, Mrs. Hubert M., 1200 W. Red Bridge Rd. 64114
Pearson, Mrs. Paul, 5820 Howe Dr., Shawnee Mission, Kan. 66205
Penner, Mrs. Stanley, 907 W. 101st Terr. 64114
Perico, Mrs. Carlos, 8446 Juniper, Shawnee Mission, Kan. 66207
Perll, Mrs. Maurice F., 830 W. 61st Terr. 64113
Perry, Mrs. Ralph, 7140 Sni-A-Bar Rd. 64129
Petersen, Mrs. George, 4806 W. 68th, Shawnee Mission, Kan. 66208
Pfeutze, Mrs. Edwin L., 5407 W. 100th Terr., Shawnee Mission, Kan. 66207
Piepergerdes, Mrs. Larry G., 1410 W. 5th, Lee's Summit 64063
Piper, Mrs. Donald, 9929 High Dr., Shawnee Mission, Kan. 66206
Pipkin, Mrs. Garrett, Rt. 2, Box 203, Clinton 64735
Pollock, Mrs. Leo H., 6601 Wenonga Terr., Shawnee Mission, Kan. 66208
Pope, Mrs. Charles H., Jr., 14401 E. 44th, Independence 64055
Porter, Mrs. Louis, 6017 McGee 64113
Potts, Mrs. Donald, 18508 E. 30th Terr., Independence 64050
Powell, Mrs. Nelson E., 9521 Linden, Shawnee Mission, Kan. 66207
Preston, Mrs. Albert, Jr., 606 W. Meyer Blvd. 64113
Pugh, Mrs. Richard George, 102 Golfview Dr., Blue Springs 64015
Quer, Mrs. Erich A., 1901 Stratford Rd., Shawnee Mission, Kan. 66208
Raich, Mrs. Robert A., 828 Greenway Terr. 64113
Ramey, Mrs. Ehret O., 8108 Ward Parkway Plaza 64114
Ramos, Mrs. Americo G., 644 W. 57th Terr. 64113
Rector, Mrs. Joe Lee, Jr., 3915 W. 53rd, Shawnee Mission, Kan. 66205
Reddin, Mrs. Jack L., 12129 Shady Bend Dr., Independence 64055
Reinhardt, Mrs. G. Robert, 1201 Romany Rd. 64113
Rhoades, Mrs. Arthur, 111 E. Antioch Rd., Box 292, Lenexa, Kan. 66215
Riller, Mrs. L. E., 1267 W. 61st 64113
Rinck, Mrs. William E., 5933 Rockhill Rd. 64110
Rippey, Mrs. John H., 6551 Wenonga Rd., Shawnee Mission, Kan. 66208
Roberts, Mrs. Sam E., 4550 Warwick Blvd. 64111
Robinson, Mrs. Arthur W., 6600 Wenonga Rd., Shawnee Mission, Kan. 66208
Robinson, Mrs. Ernest Kip, 1015 W. 58th Terr. 64113
Robinson, Mrs. William J., 9931 Lee Circle, Shawnee Mission, Kan. 66206
Robison, Mrs. James Travis, Jr., 4203 W. 92nd Terr., Shawnee Mission, Kan. 66207
Rodgers, Mrs. George H., 10041 El Monte La., Shawnee Mission, Kan. 66207
Rozen, Mrs. Jay I., 9520 Linden, Overland Park, Kan. 66207
Rubin, Mrs. Harvey P., 4606 W. 87th Terr. Shawnee Mission, Kan. 66207
Rubin, Mrs. Sidney, 1287 W. 72nd 64114
Rubnitz, Mrs. Leon, 210 W. 94th 64114
Russell, Mrs. James, 1250 W. 56th 64113
Sabates, Mrs. Felix, 1250 W. 67th Terr. 64113
Saferstein, Mrs. A. Lester, 6859 Cherry 64131
Sanders, Mrs. Clarence E., 4700 Roanoke Parkway 64112
Sanders, Mrs. Donald, 11721 Oak 64114
Sanders, Mrs. William E., 1004 W. 66th Terr. 64113
Sandow, Mrs. Theodore L., Jr., 651 W. 57th 64113
Sasano, Mrs. J. Richard, 4508 W. 93rd, Shawnee Mission, Kan. 66207
Sauer, Mrs. Gordon C., 830 W. 58th Terr. 64113
Schaerrer, Mrs. W. C., 5245 Mercier 64112
Schiffmacher, Mrs. Jack E., 4517 W. 65th, Prairie Village, Kan. 66208
Schillie, Mrs. Gene A., 8232 Linden, Shawnee Mission, Kan. 66208
Schmidt, Mrs. C. Robert, 9526 Cedar, Shawnee Mission, Kan. 66205
Schoolmam, Mrs. Arnold, 8705 Catalina Dr., Shawnee Mission, Kan. 66207
Schottman, Mrs. Gerhard W., 5010 W. 96th, Shawnee Mission, Kan. 66207
Seely, Mrs. Clark, 3000 W. 68th, Shawnee Mission, Kan. 66208
Seiden, Mrs. Gerald D., 2509 W. 71st, Prairie Village, Kan. 66208
Sells, Mrs. Kenneth, 3706 W. 52nd Pl., Shawnee Mission, Kan. 66205
Shalet, Mrs. Malcolm, 9920 Juniper, Shawnee Mission, Kan. 66201
Shapiro, Mrs. L. N., 6429 Holmes 64131
Sheldon, Mrs. Russell D., 816 W. 58th Terr. 64113
Shifrin, Mrs. Alexander, 1027 W. 69th 64113
Shireman, Mrs. Kenneth, Noland Rd. & 55th Terr., Rt. 3 64133
Shuey, Mrs. Herbert, 933 E. 77th Terr. 64131
Simon, Mrs. Sanford, 8129 Rosewood, Shawnee Mission, Kan. 66208
Sinclair, Mrs. Alexander B., Jr., 1230 W. 61st Terr. 64113
Sinclair, Mrs. Richard H., 3908 W. 91st, Shawnee Mission, Kan. 66207
Singleton, Mrs. J. Milton, III, 9030 High Dr., Leawood, Kan. 66206
Skillman, Mrs. Robert K., 10335 High Dr., Shawnee Mission, Kan. 66206
Skinner, Mrs. John T., 824 Westover Rd. 64113
Slentz, Mrs. Edwin L., 4812 W. 66th Terr., Shawnee Mission, Kan. 66208
Slentz, Mrs. William A., 9835 Pembroke La., Shawnee Mission, Kan. 66206
Slickman, Mrs. Robert A., 4937 Wyoming 64112
Smith, Mrs. Arthur B., 8409 Wenonga Rd., Shawnee Mission, Kan. 66206
Smith, Mrs. Elbert E., III, 5847 Howe Dr., Shawnee Mission, Kan. 66205
Smith, Mrs. Ira T., # 2 Wycklow, Shawnee Mission, Kan. 66207
Smith, Mrs. Othello D., 5400 W. 83rd, Shawnee Mission, Kan. 66208
Smith, Mrs. Wallace B., 3611 S. Delaware, Independence 64050
Sneid, Mrs. Philip, 4201 W. 90th Terr., Shawnee Mission, Kan. 66207
Snider, Mrs. W. Ray, 10700 E. 56th Terr. 64133
Spafford, Mrs. Allen, 5552 Belinder Ave., Shawnee Mission, Kan. 66205
Spalding, Mrs. Wilbur B., Jr., 6206 Robinson, Shawnee Mission, Kan. 66202
Spencer, Mrs. Donald M., 1035 W. 57th 64113
Spurny, Mrs. Otto M., 6400 Cherry 64131
Stacey, Mrs. Wallace R., 3407 Shady Bend Dr., Independence 64052
Staggs, Mrs. William A., 641 E. 45th 64110
Staley, Mrs. Harry R., 4740 Roanoke Parkway 64112
Stanley, Mrs. John, 5307 W. 100th St., Shawnee Mission, Kan. 66207
Statland, Mrs. Harry, 1016 W. 69th Terr. 64113
Statland, Mrs. Morris, 2911 W. 66th Terr., Shawnee Mission, Kan. 66208
Steffen, Mrs. L. F., 9548 Rosewood La., Shawnee Mission, Kan. 66207
Stelmach, Mrs. W. Jack, 4303 W. 93rd Terr., Shawnee Mission, Kan. 66207
Stephens, Mrs. Jack, 18110 E. 27th, Independence 64057
Stockton, Mrs. Raymond, 5215 W. 81st, Prairie Village, Kan. 66208
Stockwell, Mrs. A. Lloyd, 5736 Windsor Dr., Shawnee Mission, Kan. 66205
Stribling, Mrs. Thomas L., 3808 S. Union, Independence 64055
Surainder, Mrs. Yeldandi A., 6801 Crab Apple La., Apt. 11 64129
Sutton, Mrs. Richard L., Jr., 5400 Ward Parkway 64112
Szabados, Mrs. Ernest D., 1901 S. Leslie, Independence 64050
Tarson, Mrs. Solomon S., 5511 W. 85th, Shawnee Mission, Kan. 66207
Tasker, Mrs. Charles B., 2721 W. 67th Terr., Shawnee Mission, Kan. 66208
Teare, Mrs. Max, 11201 Walnut 64114
Terrill, Mrs. Robert, 10223 Lee Blvd., Shawnee Mission, Kan. 66206
Thiele, Mrs. George H., 4545 Wornall Rd. 64111
Thomas, Mrs. Christopher Y., Jr., 5830 Mission Dr., Shawnee Mission, Kan. 66208

Thompson, Mrs. C. Leslie, 1256 W. 61st Terr. 64113
Throne, Mrs. Elias M., 10621 W. 102nd, Overland Park, Kan. 66214
Tice, Mrs. Wayne K., 3504 S. Delaware, Independence 64050
Tillema, Mrs. David A., 8015 El Monte, Shawnee Mission, Kan. 66208
Totten, Mrs. Frederick E., 9331 Hayes Dr., Shawnee Mission, Kan. 66212
Toubes, Mrs. Daniel, 1610 Meadow Lake Terr. 64114
Troeh, Mrs. Richard, 13000 Delaware Dr., Independence 64055
Trowbridge, Mrs. E. H., Jr., 6436 High Dr., Shawnee Mission, Kan. 66208
Tutera, Mrs. D. F., 1260 W. 63rd Terr. 64113
Twin, Mrs. Edward, 8208 Tomahawk, Shawnee Mission, Kan. 66208
Twyman, Mrs. Richard, 1020 W. 56th 64113
Underwood, Mrs. Dick Holland, 9828 Belinder, Shawnee Mission, Kan. 66206
Unger, Mrs. Harold, 221 W. 48th 64112
Valins, Mrs. Eugene, 1209 W. 70th Terr. 64113
Van Biber, Mrs. James T., 3705 Northern Blvd., Independence 64052
Vaughn, Mrs. James W., 5509 W. 86th, Shawnee Mission, Kan. 66207
Vidals, Mrs. Guillermo, 9509 W. 104th Terr., Shawnee Mission, Kan. 66212
Vilmer, Mrs. Charles E., 6209 W. 65th, Shawnee Mission, Kan. 66202
Vincent, Mrs. Jack, 2003 W. 67th Terr., Shawnee Mission, Kan. 66208
Virden, Mrs. Herbert, 6533 High Dr., Shawnee Mission, Kan. 66208
Vogel, Mrs. Arthur P., 6524 Willow La., Shawnee Mission, Kan. 66208
Voth, Mrs. Harold, 5413 Neosho, Shawnee Mission, Kan. 66205
Wade, Mrs. Frederick E., 413 W. 62nd 64113
Wagner, Mrs. Paul J., Greenwillow Farm, Rt. 1, Greenwood 64034
Walker, Mrs. James, 609 E. 96th 64131
Walker, Mrs. John W., 10336 Mohawk, Shawnee Mission, Kan. 66206
Walker, Mrs. Orville C., 604 Partridge, Independence, Kan. 64050
Wall, Mrs. Leonard A., 5011 Neosho Ave., Shawnee Mission, Kan. 66205
Waltz, Mrs. Charles A., 504 Wedgewood Dr., Blue Springs 64015
Waltz, Mrs. James, Rt. 5, Box 202, Lee's Summit 64063
Waxman, Mrs. Herbert, 2012 W. 81st, Shawnee Mission, Kan. 66206
Webster, Mrs. Joseph, 5532 Locust 64110
Weidmaier, Mrs. E. John, 36 N.E. 61st 64118
Weir, Mrs. Robert K., 10015 E. 36th, Independence 64052
Wenner, Mrs. Herbert A., 9711 Johnson Dr., Shawnee Mission, Kan. 66203
Wheeler, Mrs. Charles B., 820 W. 57th 64113
Wheeler, Mrs. John H., 5650 Mission Dr., Shawnee Mission, Kan. 66208
White, Mrs. Charles H., 6518 Overhill Rd., Prairie Village, Kan. 66208
White, Mrs. James S., 5431 Cleveland 64130
White, Mrs. Stoughton F., 6815 Cherokee La., Shawnee Mission, Kan. 66208
Whiteman, Mrs. John R., 9729 Cherokee La., Leawood, Kan. 66206
Whitman, Mrs. Doyle C., 6836 Cherokee La., Shawnee Mission, Kan. 66208
Whitmore, Mrs. J. Stewart, 1039 W. 58th 64113
Whitten, Mrs. John S., 3823 Trail Ridge, Independence 64055
Wicks, Mrs. Edwin O., 506 N.W. 43rd Terr. 64116
Wilber, Mrs. Robert D., 6624 Willow La., Shawnee Mission, Kan. 66208
Wilhelm, Mrs. Warren F., 3100 W. 67th, Shawnee Mission, Kan. 66208
Wilkinson, Mrs. E. A., 6810 Linden La., Prairie Village, Kan. 66208
Williams, Mrs. Delon Acree, 4805 Jarboc 64112
Williams, Mrs. Frank, 5921 Ward Parkway 64113
Williams, Mrs. George P., 9413 Ralston 64138
Williams, Mrs. Joseph C., Jr., 2209 Arno Rd., Shawnee Mission, Kan. 66202
Williams, Mrs. Roland Dean, 3635 Belleview 64111
Williams, Mrs. Thomas A., 9601 Manor Rd., Leawood 66206
Williams, Mrs. Vincent T., 4400 Blue Ridge Blvd. 64133
Willits, Mrs. Lyle G., 1224 W. 62nd 64113
Willoughby, Mrs. James W., 420 N. Ridge, Liberty 64068
Willoughby, Mrs. Jean B., 1019 W. 69th Terr. 64113
Wilson, Mrs. Clifford, 5531 Neosho La., Shawnee Mission, Kan. 66205
Winer, Mrs. Herbert J., 2103 W. 69th Terr., Shawnee Mission, Kan. 66208
Winston, Mrs. Bernard H., 1006 W. 67th 64113
Wise, Mrs. Morris F., 2610 W. 105th, Leawood, Kan. 66206
Wolf, Mrs. Jack, 6125 Morningside Dr. 64113
Woods, Mrs. S. Dwight, 3408 W. 69th, Shawnee Mission, Kan. 66208
Woods, Mrs. Walton C., 9004 E. 73rd, Raytown 64133
Workman, Mrs. Charles E., 6609 Milhaven Dr., Shawnee Mission, Kan. 66202
Wortmann, Mrs. Robert F., 2819 W. 66th Terr., Shawnee Mission, Kan. 66208
Wright, Mrs. R. Paul, 4902 Belinder Rd., Shawnee Mission, Kan. 66206
Wu, Mrs. William, 4414 Homestead Dr., Prairie Village, Kan. 66208
Wurster, Mrs. Jerry B., 5746 W. 97th, Shawnee Mission, Kan. 66207
Wurster, Mrs. W. Joel, 2015 Drury La., Shawnee Mission, Kan. 66208
Youll, Mrs. Donald V., 8711 Ensley La., Shawnee Mission, Kan. 66206
Young, Mrs. James E., 9700 Overbrook Rd., Leawood, Kan. 66206
Young, Mrs. J. W., 5443 Mohawk, Shawnee Mission, Kan. 66205
Young, Mrs. Paul R., Columbia 65201
Young, Mrs. Thomas J., 12004 Beacon, Grandview 64030
Youngblood, Mrs. James, 1209 W. 58th 64113
Zacharias, Mrs. David L., 7819 N.W. Westside Dr. 64152
Zahoney, Mrs. Ivan, 4409 W. 93rd, Shawnee Mission, Kan. 66207
Zoglin, Mrs. Nathan, 333 W. Meyer Blvd. 64113
Zoller, Mrs. David D., 3607 W. 47th Terr., Shawnee Mission, Kan. 66205

JASPER COUNTY
(Joplin)

Adams, Mrs. Robert, 1302 Mississippi, 64801
Allen, Mrs. David O., Rt. 4, Box 85 64801
Alquist, Mrs. Dale, 21st & Fairview, Baxter Springs 66713
Barnett, Mrs. Norman H., Rt. 3, Box 271, 64801
Bentlage, Mrs. Charles H., 1304 Fairmont Dr. 64801
Birsner, Mrs. Frank, 1717 River St., Carthage 64836
Bladow, Mrs. Terrence, 2703 Missouri 64801
Burch, Mrs. John E., 1345 Crest Dr. 64801
Butler, Mrs. Patrick, 219 Sergeant 64801
Carnes, Mrs. Victor, 1418 Crestwood Dr. 64801
Chase, Mrs. Ned B., 2931 Indiana 64801
Chesney, Mrs. George W., Jr., 2416 E. 12th 64801
Cohle, Mrs. Richard, 1609 Lilac La., Carthage 64836
Craig, Mrs. Irwin T., 2525 E. 12th 64801
Crawford, Mrs. A. L., 2931 Pearl Ave. 64801
Crispell, Mrs. Lawrence S., 911 Kensington 64801
Curl, Mrs. Howard, 2031½ Pearl 64801
Detar, Mrs. Burleigh, Sr., 410 Jackson 64801
Esther, Mrs. John R., 612 Glenview 64801
Ferguson, Mrs. Ralph, 420 E. 33rd 64801
Ferguson, Mrs. Robert M., 2319 E. 10th 64801
Fritsch, Mrs. Andrew J., 2920 Pearl 64801
Gaston, Mrs. Samuel, 2720 Ohio 64801
Hamilton, Mrs. Eugene, 2736 E. 15th 64801
Isbell, Mrs. C. H., 1046 S. Garrison, Carthage 64836
Jeans, Mrs. Virgil, 660 Jaccard Pl., Joplin 64801
Kirschman, Mrs. Robert E., Rt. 4, Box 359 64801
Koehler, Mrs. John W., 1001 Manitou 64801
Longenecker, Mrs. J. L., 2606 E. 14th 64801
MacLaughlin, Mrs. James C., 728 N. Pearl 64801
Maddox, Mrs. John D., 1330 Crest Dr. 64801
Martin, Mrs. Clarence Adolph, 2815 Wisconsin 64801
McGonigle, Mrs. James Patrick, 1037 Campbell Parkway 64801
McKee, Mrs. Howard, 1925 Moffett 64801
McPike, Mrs. Lloyd H., 2217 Brownell 64801
Mueller, Mrs. Adolph Reginald, 615 Hampton Pl. 64801
Papp, Mrs. Sandor D., 3343 Pearl 64801
Patterson, Mrs. Donald R., 210 Duquesne 64801
Patterson, Mrs. Grover S., 1717 River, Carthage 64836
Post, Mrs. Winfred L., 2630 E. 15th 64801
Powell, Mrs. Robert G., 818 Galena Ave., Galena, Kan. 66739
Roberts, Mrs. Howard H., 650 Jaccard Pl. 64801
Schmidt, Mrs. Herbert J., 820 N. Moffet 64801
Schoeberl, Mrs. C. B., 3111 E. 4th 64801
Schulte, Mrs. Gregory A., 2515 E. 12th 64801
Scorse, Mrs. S. W., 619 W. 2nd 64801
Smith, Mrs. Roland T., 1444 Crestwood 64801
Smith, Mrs. Russell W., 315 Euclid, Carthage 64836
Straub, Mrs. David L., 811 N. Byers 64801
Upsher, Mrs. Albert E., 69 Canterbury La. 64801
Walker, Mrs. Paul, 1022 N. Sergeant 64801
Warrender, Mrs. Charles, 505 W. 34th 64801
Wieman, Mrs. Harry K., 636 N. Wall 64801
Willcoxon, Mrs. Robert Leonard, 1330 Vallee Dr. 64801
Wood, Mrs. George H., 530 E. Highland, Carthage 64836
Wooldridge, Mrs. Bart F., 1435 Crest Dr. 64801
Young, Mrs. C. C., 2518 E. 13th 64801

JEFFERSON COUNTY

Albee, Mrs. Roger, Festus 63028
Bai, Mrs. Sangzin, Festus 63208
Bonifacio, Mrs. Andres, Crystal City 63019
Carroll, Mrs. Richard C., Crystal Hts. Rd., Crystal City 63019
Donnell, Mrs. Harold, DeSoto 63020
Donnell, Mrs. Hart, Crystal City 63019
Glasgow, Mrs. David, Festus 63028
Ibaviosa, Mrs. Alfred, Festus 63028
Judge, Mrs. Thomas, Crystal City 63019
Manalo, Mrs. Gil, Festus 63028
Mayfield, Mrs. Logan, Crystal City 63019
Senn, Mrs. Emmett, Herculaneum 63048

JOHNSON COUNTY
(Warrensburg 64093)

Cooper, Mrs. R. Lee, Rt. 1
Cooper, Mrs. Robert L., II, 310 Johnson Dr.
Damron, Mrs. O. H., 308 Jones, Warrensburg 64093
Folkner, Mrs. Albert L., Rt. 1
Hanna, Mrs. Hugh, Rt. 5
Harkness, Mrs. Harry H., Burkarth Rd.
Johnson, Mrs. Charles S., 502 Hurricane Hill
Jones, Mrs. Keith D., Box J (711 S. Holden)
Lederer, Mrs. Charles M., 617 Clark
Maxson, Mrs. T. Redd, Arilen Acres

LAFAYETTE-RAY COUNTIES

Boyston, Mrs. Wayne, Odessa 64076
Brady, Mrs. Hugh, Concordia 64020
Cook, Mrs. Edna, Richmond 64085
Cook, Mrs. Thomas B., Richmond 64085
Cope, Mrs. Joseph S., Lexington 64067
Crozier, Mrs. Frank, Sr., Rt. 2, Richmond 64085
Devault, Mrs. George, Richmond 64085
Huber, Mrs. Herbert, 205 E. Royle, Richmond 64085

Johnston, Mrs. Esther, Concordia 64020
Kelling, Mrs. Jordan, Waverly 64096
Koppenbrink, Mrs. W. E., Jr., Higginsville 64037
Koppenbrink, Mrs. W. E., Sr., Higginsville 64037
LaHue, Mrs. William, 402 N. 15th, Lexington 64067
Liston, Mrs. Odis, Oak Grove 64075
Martin, Mrs. W. E., Odessa 64076
Pavlu, Mrs. Robert R., 14 W. 13th, Carrollton 64633
Riley, Mrs. Charles, Rt. 2, Richmond 64085
Vajaranant, Mrs. Manit, N. 17th, Lexington 64067
Ward, Mrs. Joe W., Lexington 64067
Williams, Mrs. John, Oak Grove 64075

MILLER-MONITEAU-MORGAN

Buehler, Mrs. Carl T., Jr., Eldon 65026
Burke, Mrs. J. P., California 65018
Fulks, Mrs. Richard B., California 65018
Gallagher, Mrs. Lionel M., California 65018
Gunn, Mrs. Jack, Versailles 65084
Hall, Mrs. C. Robert, 306 N. VanBuren, Versailles 65084
Latham, Mrs. Kenyon, 200 S. High, California 65018
Lyle, Mrs. Ray, Versailles 65084
Shelton, Mrs. E. O., Eldon 65026
Washburn, Mrs. J. L., Versailles 65084

MINERAL AREA

(St. Francois-Iron-Madison-Washington-Reynolds-Ste. Genevieve Counties)

Cancelada, Mrs. Juan, 323 North A, Farmington 63640
Huckstep, Mrs. Robert A., Rt. 1, Farmington 63640
Mardini, Mrs. Edward, 140 Church, Bonne Terre 63628

PETTIS COUNTY
(Sedalia 65301)

Block, Mrs. Jerome E., 807 Ruth Ann Dr.
Boger, Mrs. John W., 2803 Skyline Dr.
Braverman, Mrs. Elliot M., Rt. 3, Walnut Hills
Brazos, Mrs. John, Rt. 2
Campbell, Mrs. Albert J., 1500 W. 16th
Cole, Mrs. William R., Rt. 1, Smithton 65350
Edmonds, Mrs. Robert, 2413 S. Stewart
Edwards, Mrs. David R., 1619 S. Moniteau
Erickson, Mrs. H. John, Rt. 3, Walnut Hills
Fisher, Mrs. Stanley D., 2200 S. Kentucky
Glass, Mrs. Robert L., 720 S. Beacon
Gonser, Mrs. Karl B., 1619 W. Broadway
Hopkins, Mrs. Thomas J., 1506 W. Broadway
Lamy, Mrs. John E., 400½ Dal-Whi-Mo Ct.
Long, Mrs. Frank B., 723 W. 7th
Owens, Mrs. John H., 2616 Plaza
Roberts, Mrs. Paul A., 101 E. Marshall, Sweet Springs 65351
Stauffacher, Mrs. Gordon C., 1313 W. Broadway
Stewart, Mrs. Robert H., 201 Driftwood Dr.
Stockwood, Mrs. Robert C., 2600 S. Quincy
Van Dyke, Mrs. Elmer, Rt. 4, Box 91-A
Worley, Mrs. C. A., 102 W. Ray, Sweet Springs 65351

ST. CHARLES-LINCOLN COUNTIES
(St. Charles 63301)

Baird, Mrs. Keim L., 16 Warwick Ct.
Beis, Mrs. Louis, 113 A-Okay Dr.
Cannon, Mrs. Richard, 9 Berkshire
Canty, Mrs. Eugene, 1824 Sibley
Carpenter, Mrs. James, 13417 Manorlac, Creve Coeur 63141
Clay, Mrs. Calvin, 808 Oak
Clever, Mrs. Henry, 815 Indian Hills Dr.
Commerford, Mrs. John, 10 Rio Vista
Connelly, Mrs. Michael, 805 Paddock, Florissant 63033
Crider, Mrs. Russell, 1875 S. River Rd. 63301
Damron, Mrs. Edward, 602 N. 5th, Elsberry 63343
Del Pizzo, Mrs. Ferdinand, 900 Elmwood
DuMontier, Mrs. R. J., O'Fallon 63366
Duncan, Mrs. David, 12911 Cedarledge Ct. 63141
Fleming, Mrs. Robert, 2 Indian Hills Ct.
Goldkamp, Mrs. John, 10 Shawnee
Gore, Mrs. Glenn, 140 Ladue Pines 63141
Hanlon, Mrs. Russell, 2616 Brookridge La.
Hetlage, Mrs. Louis, 5 Sunset Dr., Troy 63379
Hurd, Mrs. Ronald, 115 S. Cardinal La.
Keller, Mrs. Robert, 712 Parr, Wentzville 63385
Kister, Mrs. George, 236 Thomas
Lensenmeyer, Mrs. Charles, 445 Nantucket
Muhm, Mrs. Yale, 548 Riverview La.
Ordoukharian, Mrs. Tatool, 1519 Shoemaker Ct., Creve Coeur 63141
Perna, Mrs. Vincent, 14 Rio Vista
Poggemeier, Mrs. William, 140 Prairie Haute
Rice, Mrs. Ronald, 301 Oriole
Roach, Mrs. Edward, 2520 Bolton
Roter, Mrs. Alex, 11223 Turren, St. Louis 63141
Rother, Mrs. Paul, 7 Elmwood Park
Schneider, Mrs. Thomas, 3208 W. Adams
Shuetz, Mrs. Alfred, 904 Indian Hills Dr.
Soucy, Mrs. John, 4 Weldon Springs Heights
Tassi, Mrs. Albert, 6 Westminster
Thiele, Mrs. Otto, 3100 W. Adams
Towers, Mrs. Orville W., Rt. 1, Box 1
Vart, Mrs. Gary Vart, 2620 Park Ave.
Westerfeld, Mrs. Roy, Rt. 5, Box 57
Wipfler, Mrs. Earl, 405 Duckett

ST. LOUIS CITY
(St. Louis)

Abel, Mrs. Oliver, III, 6449 Wydown 63105
Arneson, Mrs. Axel N., 6314 Waterman 63130
Arnot, Mrs. John P., 523 Gatehill La., Ballwin 63011
Barden, Mrs. Frank W., 41 Beaver Dr. 63141
Bartlett, Mrs. Robert W., 6459 Wydown 63105
Bartlett, Mrs. Willard, Jr., 6345 Ellenwood 63105
Bartlett, Mrs. Willard, Sr., 53 Westmoreland Pl. 63108
Becker, Mrs. Stanley C., 11959 Emerald Green Dr. 63141
Bell, Mrs. Robert M., 35 Glen Rd. 63119
Benjamin, Mrs. Durand, 7340 Navarre Circle 63123
Bilsky, Mrs. Nathan, 2 Somerset Downs 63124
Boemer, Mrs. Lilburn C., 49 Clermont La. 63124
Bohrer, Mrs. Harry C., 4112 Flora Pl. 63110
Boyd, Mrs. Arthur M., 6556 Delor Ave. 63109
Bradley, Mrs. Frank R., 7404 Oxford Dr. 63105
Brennan, Mrs. Robert Alexis, 6030 Highfield Rd. 63109
Brown, Mrs. Clyde O., 7419 York Dr. 63105
Brown, Mrs. E. Eugene, 7508 Cromwell Dr. 63105
Brown, Mrs. Seymour, 2 Ricardo La. 63124
Bruns, Mrs. Kenneth, 1 Salem Estates Dr. 63124
Budd, Mrs. John J., Jr., 501 Overhills Dr. 63124
Burroughs, Mrs. W. H., 7327 Pershing 63130
Burst, Mrs. Donald O., 61 Trent Dr. 63124
Cannon, Mrs. Edward M., 20 Briarcliff 63124
Cappell, Mrs. Powell B., 27 Old Westbury La. 63119
Carney, Mrs. Joseph E., 6625 Pernod Ave. 63139
Cherre, Mrs. Charles J., 10 Ridgetop 63117
Ciapciak, Mrs. Stanley J., 30 Log Cabin Dr. 63124
Conrad, Mrs. Adolph H., Jr., 9 Dromara Rd. 63124
Costa, Mrs. Dominic V., 10 Devondale La. 63131
Crespin, Mrs. Stephen R., 10458 Briar Bend Dr. 63141
Daake, Mrs. John W., 48 Portland Pl. 63108
Dalton, Mrs. Arthur R., 13133 Conway & Mason Rd. 63141
Dewald, Mrs. Paul A., 60 Conway La. 63124
Diehr, Mrs. Alvin H., Park Tower Apts. 63105
DiLeo, Mrs. Senatro W., 34 Ridgetop 63117
Dorton, Mrs. Robert K., 12065 Heatherdance 63131
Dreyer, Mrs. Carl Joseph, 45 Glen Rd. 63119
Dripps, Mrs. Roy C., 7824 Keswick Pl. 63119
Eades, Mrs. Dee W., 6 Kingsbury Pl. 63112
Eagleton, Mrs. Mark D., 22 Carrswold 63105
Edwards, Mrs. Joseph C., 610 W. Polo Dr. 63105
Egan, Mrs. Robert C., 556 Oak Haven La. 63141
Eigel, Mrs. Edwin G., 3654 Flora Pl. 63110
Ernst, Mrs. Edwin C., 2 Schultz Rd. 63122
Feller, Mrs. Harold H., 5834 Bermuda Rd. 63121
Finn, Mrs. Murray Eugene, 47 Portland Pl. 63108
Fish, Mrs. Virgil O., 2500 Town & Country La. 63131
Fitzgerald, Mrs. Leo P., 7219 Cornell Ave. 63130
Fitzgerald, Mrs. William T., 6425 Rhodes 63109
Franklin, Mrs. Max S., 7536 Buckingham Dr. 63105
Fries, Mrs. Armand D., 11 W. Geyer La. 63131
Furla, Mrs. Gus John, 57 Broadview Dr. 63105
Gandlmayr, Mrs. Jack M., 13600 Peacock Farm Rd. 63141
Gantner, Mrs. George E., Jr., 233 Woodbourne Dr. 63105
Gantz, Mrs. John A., 6106 Willow Bend 63123
Glaser, Mrs. Martin J., 3550 Hawthorne Blvd. 63104
Goldman, Mrs. Melvin L., 8650 Barby La. 63124
Gomez, Mrs. Cesar A., Jr., 18 Portland Dr. 63131
Graul, Mrs. Walter P., 22 W. Sherwood 63114
Green, Mrs. William R., 10311 N. Sunswept 63141
Grogan, Mrs. Frank M., 4166 Flora Pl. 63110
Gunn, Mrs. Walter T., 6742 Itaska 63109
Haddock, Mrs. James N., 111 Firwood Dr. 63119
Haeberle, Mrs. Frederick S., 5351 Delmar, Masonic Home 63130
Hagebusch, Mrs. Omar E., 16 Covington La. 63132
Hall, Mrs. Preston C., 39 Woodcrest Dr. 63124
Harkins, Mrs. William B., 7 Kingsbury Pl. 63112
Harris, Mrs. Solon P., 7138 Maryland 63130
Harrison, Mrs. Lee B., 44 Ridgemoor Dr. 63105
Hassett, Mrs. Henry A., 4440 Lindell 63108
Haynes, Mrs. Pugh, 8006 Gannon 63130
Henschel, Mrs. Eugene V., 55 Broadview Dr. 63105
Hertel, Mrs. Ronald C., 122 Frontenac Forest 63131
Hicks, Mrs. Robert S., 733 Sherwood Dr. 63119
Hilbert, Mrs. Paul H., 5701 Pernod Ave. 63139
Hogan, Mrs. Patrick C., 9036 Laurel Crest Dr. 63126
Hollo, Mrs. Vencel W., 5925 Lindell 63112
Hutchinson, Mrs. William B., 15 Portland Dr. 63131
Jensen, Mrs. Joshua E., 3 Brazillian Ct. 63124
Jones, Mrs. Otey S., 2010 Longfellow Blvd. 63104
Jost, Mrs. Charles A., 2 Bellerive Acres 63121
Karandjeff, Mrs. A. D., 48 Lake Forest, 63117
Karl, Mrs. Michael M., 14 Thorndell Dr. 63117
Kelley, Mrs. Robert Wilson, 5371 Waterman 63112
Kendig, Mrs. John H., 841 Rolfe Dr. 63122
King, Mrs. Samuel J., 5000 S. Broadway 63111
Klein, Mrs. Harry A., 2 Sunswept Dr. 63141
Klein, Mrs. Saul J., 11 Huntleigh Downs 63131
Klippel, Mrs. Bernhardt W., 52 Fair Oaks 63124
Kloecker, Mrs. Richard J., 1022 Hampton Park 63117
Kluegel, Mrs. William A., 2845 Gravois Ave. 63118

Kneal, Mrs. Ellsworth, 725 S. Skinner 63105
Knight, Mrs. Franklin P., 11465 Fairlane Ct. 63136
Knight, Mrs. William A., Jr., 12 Briarcliff 63124
Koehler, Mrs. George A., 3 Litzinger La. 63124
Komanetsky, Mrs. William, 7447 Sharp Ave. 63116
Koon, Mrs. Bernard T., 2623 Gurney Ct. 63110
Kountz, Mrs. William B., 2619 Gurney Ct. 63110
Kowert, Mrs. Edward H., 330 Planthurst Dr. 63119
Krojanker, Mrs. Rolf J., 1060 Purdue 63130
Kuhlman, Mrs. Robert E., 12 Upper Barnes Rd. 63124
Langsdorf, Mrs. Herbert S., 3681 Alberta Ave. 63116
Lau, Mrs. Luis F., 1467 Reauville Dr. 63122
Laux, Mrs. France A., 287 Ridge Trail Dr. 63017
Lembeck, Mrs. Joseph A., 4103 Flora Pl. 63110
Lerwick, Mrs. E. R., 40 Portland Pl. 63108
Lewis, Mrs. J. Eugene, Jr., 7129 Kingsbury Ave. 63130
Lohr, Mrs. Curtis H., 300 S. Grand Ave. 63103
Lottes, Mrs. J. Otto, 1028 Winwood Dr. 63124
Macnish, Mrs. James M., 229 Bompart 63119
Mathae, Mrs. George H., 3167 S. Grand Blvd. 63118
McMahon, Mrs. Alphonse, 5 Covington Meadow 63132
Mehan, Mrs. Donald J., 34 Godwin 63124
Mendonsa, Mrs. Lawrence E., 138 Ridgecrest Dr., Chesterfield 63017
Merenda, Mrs. Sam J., 45 Berry Road Park, 63122
Merklin, Mrs. Anton L., 1 Fordyce Manor 63131
Mestres, Mrs. Hugh M., 12329 Federal Rd. 63131
Meyerhardt, Mrs. Milton H., 665 S. Skinker Blvd. 63105
Montgomery, Mrs. Austin F., 18 Southcote Rd. 63144
Morfit, Mrs. John C., 7627 Wydown Blvd. 63105
Mowrey, Mrs. William O., 7071 Lindell 63130
Muether, Mrs. R. O., 19 Country Life Acres 63131
Neilson, Mrs. Arthur W., 6349 Alexander Dr. 63105
Neun, Mrs. William F., 5862 Delor 63109
Nye, Mrs. Robert S., 4910 Broadway S. 63111
Obermeyer, Mrs. Charles G., 3957 Holly Hills Blvd. 63116
O'Neal, Mrs. Lawrence W., 9975 Holliston Ct. 63124
Oppenheimer, Mrs. Henry E., 9444 Old Bonhomme Rd. 63132
Orenstein, Mrs. Joseph M., 417 Jackson Ave. N. 63130
O'Sullivan, Mrs. George A., 6181 Lindell 63112
Peden, Mrs. Joseph C., Jr., 51 Fair Oaks 63124
Peeler, Mrs. J. O., 10000 Knoll Crest Ct. 63136
Pernoud, Mrs. Flavius G., Jr., 841 Audubon Dr. 63105
Powell, Mrs. Earl A., 78 Lake Forest 63117
Powers, Mrs. Pierce W., 4 Crestwood Dr. 63105
Pyne, Mrs. Herbert S., 5320 Mardel 63109
Raybuck, Mrs. Harry Earl, Jr., 22 Rolling Rock Ct. 63124
Rendleman, Mrs. George R., Jr., 2 Vista Brook La. 63124
Ritter, Mrs. Hubert A., 26 Briarcliff 63124
Rodriquez, Mrs. U. R., 10408 Daybreak Dr. 63128
Sanders, Mrs. Robert D., 4214 Flora Pl. 63110
Sante, Mrs. Leroy, 308 Orchard Ave. 63119
Scheer, Mrs. George E., 53 Berkshire, 63117
Schmidt, Mrs. Edwin H., 10240 Schuessler Rd. 63128
Schweiss, Mrs. John F., 1414 Westwind Dr. 63131
Sciortino, Mrs. Gaspare, 1019 Laval Dr. 63132
Scott, Mrs. Elwin Powers, 12718 Post Oak Rd. 63131
Sexton, Mrs. Daniel L., 14 Crestwood Dr. 63105
Shaw, Mrs. Edward J., 3723 Delor 63109
Sherwin, Mrs. Charles F., Lonedell 63060
Sherwin, Mrs. Charles S., 3971 Flora Pl. 63110
Simon, Mrs. David L., 7809 Gannon 63130
Simon, Mrs. Jerome I., 12 Westridge Ct. 63124
Smith, Mrs. Benjamin F., 5 Fordyce Manor 63131
Smith, Mrs. Herbert P., 9245 Sappington Rd. 63126
Smith, Mrs. Hugh R., 8836 Rock Forest Dr. 63123
Smolik, Mrs. Edmund A., 59 Middlesex Dr. 63144
Spoeneman, Mrs. Walter H., 18 Biritz Ct. 63137
Stephens, Mrs. LeRoy, 218 Sylvester 63119
Stindel, Mrs. Charles E., 341 Violet La. 63119
Strominger, Mrs. Donald B., 701 Yale Ave. 63130
Stroud, Mrs. C. Malone, 6232 McPherson 63130
Sudholt, Mrs. Alfred F., Jr., 13398 Conway Rd. 63131
Sullivan, Mrs. Clement J., 7740 Mohawk Dr. 63105
Sweet, Mrs. Herbert C., 3 St. James Ct. 63119
Thale, Mrs. Thomas, 351 Meadow Brook, Ballwin 63011
Thompson, Mrs. J. William, 92 Lake Forest 63117
Tjoflat, Mrs. Oliver E., 252 Woodbourne 63105
Tremain, Mrs. Irl G., 4254 Flora Pl. 63110
Twedell, Mrs. Donald, 5341 Bermuda Rd. 63121
Vandover, Mrs. John T., 3 Grantwood La. 63123
Vest, Mrs. James C., 2800 Stonington 63131
Virant, Mrs. John A., 119 S. Spoede Rd. 63141
Wegner, Mrs. Carl R., 7401 Wellington Ave. 63130
Weinel, Mrs. Francis G., 333 Oakwood Ave. 63119
Welsh, Mrs. Laurence C., 103 Old Watson Rd. 63119
Wennerman, Mrs. Sam F., 501 Warren 63130
Werner, Mrs. William A., 6015 Childress Ave. 63109
Wilucki, Mrs. Melvin R., 6455 Westway Rd. 63109
Witt, Mrs. Clyde M., 11 Deer Creek Woods 63124
Wittgen, Mrs. Edward M., 8901 Rock Forest Dr. 63123
Young, Mrs. H. McClure, 245 Union Blvd. 63108
Zeitler, Mrs. William T., 152 Timbercrest Rd. 63122
Zink, Mrs. Oscar C., 9 The Orchards 63132

ST. LOUIS COUNTY

Alex, Mrs. Morris, 18 Crosswinds 63132
Aronson, Mrs. Abraham, 11 Conway La. 63124
Ayata, Mrs. Sedat, 2 Bon Aire, Olivette 63132
Bagby, Mrs. J. W., 7 Country Life Acres 63131
Bailey, Mrs. Wm. Harold, 9157 E. Milton Ave., Overland 63114
Bergmann, Mrs. John F., 550 Bonhomme Woods 63132
Berndsen, Mrs. Gerard H., 12933 Topping Estates 63131
Berwald, Mrs. Irvin I., 747 Old Bonhomme Rd. 63130
Boles, Mrs. C. Read, 9307 Old Bonhomme Rd. 63132
Bowles, Mrs. G. Robert, 754 Gabriel Ct. 63122
Briscoe, Mrs. John R., 10053 Briarwood 63124
Cacioppo, Mrs. Joseph E., 1809 New Jamestown Rd. 63138
Carlson, Mrs. Arne E., 89 Pebblebrook La. 63141
Catanzaro, Mrs. R. E., 412 Tregaron Pl. 63131
Chinsky, Mrs. Murray, 7200 Colgate Ave. 63130
Coldwater, Mrs. Kenneth, 1520 Ridgewood Dr. 63126
Costrino, Mrs. Joseph A., 12567 Conway Rd. 63141
Cowdry, Mrs. Edmund, 220 Woodridge 63122
Davidson, Mrs. Morris, 128 Frontenac Forest 63131
Davis, Mrs. Edgar W., 49 Woodcrest Dr. 63124
Deitchman, Mrs. Robert, 1 Ridgegate Dr. 63132
Deyton, Mrs. John W., 659 Fairview Ave. 63119
Diehr, Mrs. Maurice A., 28 Dromara Rd., Ladue 63124
Dill, Mrs. Foster A., 1551 Bellevue Ave. 63117
Doisy, Mrs. Robert A., 103 Edwin Ave. 63122
Dyer, Mrs. Clyde P., Box 2710, Carmel, Calif. 93921
Efron, Mrs. Joseph, 30 Ladue Estates Dr. 63141
Eidelman, Mrs. Jack, 8001 Watkins Dr. 63105
Eller, Mrs. C. Howe, 1408 Fawnvalley Dr. 63131
Emerson, Mrs. Reynolds L., 618 S. Rock Hill Rd. 63119
Estes, Mrs. Jack, 53 Bellerive Acres 63121
Ferrara, Mrs. John P., 31 Bellerive Acres 63121
Finkee, Mrs. Barney W., 7210 S. Bristol Dr. 63121
Fischer, Mrs. John, 22 Colonial Hills Parkway 63141
Fletes, Mrs. James W., 5601 Lindell Blvd. 63112
Forsman, Mrs. Waldo W., 4128 S. Lindbergh Blvd. 63127
Fox, Mrs. Leon J., 903 S. Warson Rd. 63124
Freiheit, Mrs. Harold J., 9270 Rott Rd. 63127
Friedman, Mrs. Ira J., 33 Ridgemoor Dr. 63105
Fuchs, Mrs. George J., Rt. 2, Barnett 65011
Gall, Mrs. Ira G., 8989 Moydalgan Dr. 63124
Gearhart, Mrs. Wilbur H., 14084 Deltona Dr. 63017
Gellman, Mrs. J. M., 900 Clayworth Dr. 63011
Goodman, Mrs. Nathaniel, 9 Scarsdale La. 63117
Goodrich, Mrs. Harold A., 52 S. Rock Hill Rd. 63119
Grundmann, Mrs. Wm. H., 1701 Exuma Dr. 63136
Hamilton, Mrs. Caldwell K., 11317 Moseley La. 63141
Harwell, Mrs. J. Larry, 6914 Kingsbury Blvd. 63130
Hayward, Mrs. John D., 221 Clay Ave. S. 63122
Hershey, Mrs. Falls B., 11 Wydown Terr. 63105
Hickey, Mrs. Glenn M., 510 Lalor Dr., Manchester 63011
Hoard, Mrs. Joseph W., 129 E. Kirkham Ave. 63119
Hobbs, Mrs. John E., 25 Woodcrest Dr. 63124
Holscher, Mrs. Edward C., 234 W. Jackson Rd. 63119
Hughes, Mrs. Robert G., 41 Chaminade Dr. 63141
Izmirlian, Mrs. Grant, 525 Fairview Ave. 63119
Kamuran, Mrs. Ozgoncu, 322 Laduemont 63141
Kendis, Mrs. Joseph B., 19 Warson Terr. 63124
Kenzler, Mrs. Jack I., 1451 Wilton La. 63122
Kimelman, Mrs. Nathan, 21 Granada Way 63124
King, Mrs. E. E., 2915 Bellerive Dr. 63121
Klippel, Mrs. Allen, 7112 Wydown Blvd. 63105
Knock, Mrs. Henry L., 33 Algonquin Wood, Glendale 63122
Kopp, Mrs. Jules H., 23 Arbor Terr. 63122
Krieger, Mrs. John L., 28 Berry Rd. Park, 63122
Lansche, Mrs. W. Edward, 809 Rampart Dr. 63122
Leslie, Mrs. C. H., 1065 Haversham 63131

Lord, Mrs. Richard, 8 Mayfair Rd. 63124
Luehrs, Mrs. Robert O., 900 S. Hanley Rd., Apt. 2A 63105
Lund, Mrs. Herluf G., 58 Portland Dr. 63131
Luther, Mrs. George A., 177 Ladue Oaks Ct. 63141
Magidson, Mrs. S. Joseph, 615 Forest Ct. 63105
Magness, Mrs. Guy N., 7727 Blackberry La. 63130
Malles, Mrs. A. Conrad, 68 Woodoaks Trail 63124
Mayer, Mrs. Robert A., 614 Spring Meadows Dr. 63011
McLean, Mrs. Royal C., 520 W. Jewel 63122
McNalley, Mrs. M., 2100 Raynor Rd. 63122
Meador, Mrs. James R., 9 Bellerive Acres 63121
Meneses, Mrs. Orlando G., 619 Craig Dr. 63122
Mezera, Mrs. Raymond A., 7345 Whitehaven Dr. 63123
Middleton, Mrs. Jerry N., 24 Foxboro La. 63124
Miles, Mrs. Paul W., 15 Ridge Creek Rd. 63141
Miller, Mrs. Charles, Jr., 206 N. Fillmore 63122
Molden, Mrs. Charles A., 36 Bellerive Acres 63121
Montes, Mrs. Arturo, 11542 Rosary 63138
Moore, Mrs. Harry G., 17 Westmoreland Pl. 63108
Moore, Mrs. William E., 7277 N. Roland Blvd. 63121
Mueller, Mrs. Robert J., 40 Huntleigh Woods 63131
Myers, Mrs. Ivan, 232 Chasselle La. 63141
Nakada, Mrs. James R., 2 Huntleigh Downs 63131
O'Connell, Mrs. John J., 1937 O'Connell Ave. 63114
Ott, Mrs. Harold J., 29 Bopp La. 63131
Ottensmeyer, Mrs. Charles D., 12 Orange Hills Dr. 63017
Pennoyer, Mrs. James, 117 Plant Ave. 63119
Phillips, Mrs. Hanford, 215 Graybridge Rd. 63124
Probst, Mrs. Raymond E., 23 Godwin La. 63124
Racadio, Mrs. Sever, 223 Orrick La. 63122
Ragland, Mrs. John E., 624 Kehrs Mill Rd. 63011
Rao, Mrs. Carlo, 18 Ladue Estates Dr. W. 63141
Redington, Mrs. James C., Jr., 1 Tuscany Park 63105
Reiches, Mrs. Aaron J., 11 Brazilian Ct. 63124
Reilly, Mrs. Pierce J., 825 S. Hanley Rd. 63105
Richardson, Mrs. Thomas F., 8034 Crescent Dr. 63105
Roberts, Mrs. Harold K., 434 S. Hanley Rd. 63105
Robertson, Mrs. Frank G., 642 N. Forest 63119
Roblee, Mrs. Melvin A., 5 Kingston Manor 63124
Rosario, Mrs. Horacio O. del, 1984 Pick Fair 63140
Roufa, Mrs. Joseph, 12390 Montsouris Dr. 63141
Ruhling, Mrs. Rudy, 6 Webster Knolls 63119
Schattyn, Mrs. J. Martyn, 9 Huntleigh Downs 63131
Schwartz, Mrs. Melvin M., 61 Lake Forest 63117
Schwarz, Mrs. Luis, 8145 University Dr. 63105
Shah, Mrs. Anwar, 9810 Log Cabin Ct. 63124
Shepherd, Mrs. Charles T., 10 Covington Meadows 63132
Simril, Mrs. Wayne A., 21 Somerset Downs 63124
Sisk, Mrs. James C., 146 Frontenac Forest 63131
Speno, Mrs. Angelo A., 11815 Point Oak 63131
Steiner, Mrs. A. J., 8 Country Aire 63131
Sullivan, Mrs. William, 1313 Lockett La. 63122
Sutter, Mrs. Richard A., 7215 Greenway Ave. 63130
Teiber, Mrs. Fred W., 38 Fair Oaks 63124
Tobias, Mrs. Norman, 700 S. Meramec Ave. 63105
Tsifutis, Mrs. Argyrios A., 8631 Rosalie Ave. 63144
Valach, Mrs. Frank J., 4 Nassau Circle 63141
Vitale, Mrs. Nicholas, 614 Coachlight La. 63042
Vollmar, Mrs. C. J., 9756 Old Warson Rd. 63124
Walker, Mrs. Harvey, 7361 Stanford 63130
Walther, Mrs. Roy A., Jr., 7 High Acres Dr. 63132
Walton, Mrs. J. H., 6216 Lindenwood Ct. 63109
Weitman, Mrs. Maximilian, 8326 Delcrest Dr. 63124
Whitener, Mrs. Miles, 580 Dielman Rd. 63132
Whitener, Mrs. Paul R., 3291 Carlow Pl. 63074
Wittler, Mrs. Harry A., 1919 Korlin Dr. 63131
Wulff, Mrs. George J., 410 N. Newstead Ave. 63108
Yanow, Mrs. Mitchell, 8 Rolling Rock 63124

SALINE COUNTY
(Marshall 65340)

Aiken, Mrs. George A., 50 Ridgecrest Rd.
Blalock, Mrs. Robert W., 526 E. Eastwood
Hall, Mrs. Thomas, Arrow Rock 65320
Haynes, Mrs. R. C., 754 E. Eastwood
Knipschild, Mrs. Bedford F., 505 N. Brunswick
Lawrence, Mrs. John R., Arrow Rock 65320
McBurney, Mrs. C. Alex, 927 Hurt, Slater 65349
McCorkle, Mrs. E. Lee, 791 Eastwood
Raynor, Mrs. Richard C., 758 S. Brunswick
Reid, Mrs. James A., 102 E. Rea
Roehrs, Mrs. Marvin Emil, 756 E. Eastwood
Simmons, Mrs. Sterling P., 963 S. Lafayette
Watson, Mrs. Cecil L., 519 E. Arrow

SOUTH CENTRAL

Coffee, Mrs. Amos L., Hwy 60 E., Willow Springs 65793
Cooper, Mrs. C. W., Thayer 65791
Denney, Mrs. R. W., 605 E. State Blvd., Mountain Grove 65711
Fowler, Mrs. M. L., 1302 W. 3rd, West Plains 65775
Hasek, Mrs. James, 609 Doris Ave., Mountain Grove 65711
Morgan, Mrs. W. T., 1309 W. 2nd, West Plains 65775
Smith, Mrs. C. Franklin, Rt. 3, Willow Springs 65793
Smith, Mrs. Rollin H., 620 W. Main, West Plains 65775
Walker, Mrs. A. T., Thayer 65791
Wall, Mrs. Joe A., 320 Cherry Ave., Houston 65483
Wiles, Mrs. Jack, 1212 W. Broadway, West Plains 65775

MEMBERS-AT-LARGE

Allen, Mrs. S. Lloyd, 3809 N.W. 62nd Terr. Kansas City 64151
Bach, Mrs. Lyle M., 4209 W. Ely Rd., Hannibal 63401
Barger, Mrs. O. B., P. O. Box 353, Harrisonville 64701
Bass, Mrs. B. J., Salem 65560
Bauman, Mrs. Henry, 929 W. 3rd, Maryville 64468
Bealer, Mrs. A. L., 160 Mocking Bird La., Lebanon 65536
Campbell, Mrs. James, Loch Forest, Macon 63552
Carrington, Mrs. Howard W., 105 Bennett, Lebanon 65536
Comeau, Mrs. Richard, Dexter Convalescent Manor, Dexter 63841
Crider, Mrs. Clara, Dixon 65459
Davis, Mrs. Landis Y., Canton 63435
DeGenova, Mrs. Gerald H., 585 Cedar La., St. Genevieve 63670
Dreyer, Mrs. Philip V., 208 Short St., Huntsville 65259
Eggleston, Mrs. Donald E., 410 N. Rutherford, Macon 63552
Eklund, Mrs. A. W., 1400 Country Club Dr., Pleasant Hill 64080
Fischer, Mrs. Theodore, P. O. Box 146, Altenburg 63732
Fleming, Mrs. Thomas S., 517 Fort St., Moberly 65270
Fleming, Mrs. J. Will, Jr., Urbandale, Moberly 65270
Froelich, Mrs. R. W., 1345 W. Madison, Lebanon 65536
Garrison, Mrs. Theodore W., Jr., Camdenton 65020
Hite, Mrs. Dennis, 140 Mockingbird La., Lebanon 65536
Huber, Mrs. L. E., 400½ W. Reed, Moberly 65270
Kimball, Mrs. I. W., 6600 Tower Dr. N.W., Kansas City 64151
Koon, Mrs. Ben, Rt. 3, Bolivar 65613
Love, Mrs. W. S., 527 S. Adams, Nevada 64772
Lutkewitte, Mrs. Joseph F., 33 St. Jude Dr., Ste. Genevieve 63670
McDermott, Mrs. Alfred E., 1104 Reddick, Perryville 63775
McNeel, Mrs. Lee A., Greenfield 65661
Morgan, Mrs. Troy, 609 E. Clay, Albany 64402
Powers, Mrs. John A., 315 N. Pine, Harrison, Ark. 72601
Stricker, Mrs. E. A., 501 Evergreen, St. James 65559
Wheeler, Mrs. Robert L., 1202 E. South St., Harrisonville 64701
Wray, Mrs. Rolla B., 701 South Adams, Nevada 64772

Constitution and Bylaws

of the

Missouri State Medical Association

Adopted 1903

1972 Revision

515 EAST HIGH ST. JEFFERSON CITY, MO. 65101

Constitution

ARTICLE I. NAME OF THE ASSOCIATION

The name and title of this organization shall be the Missouri State Medical Association.

ARTICLE II. PURPOSE

The purpose of this Association is the promotion of the science and art of medicine, the protection of public health, the betterment of the medical profession, and, by uniting with similar organizations in other states and territories of the United States, to form the American Medical Association.

ARTICLE III. MEMBERSHIP

Membership in this Association shall be limited to and include all members in good standing in component societies which hold charters from this Association.

ARTICLE IV. HOUSE OF DELEGATES

The House of Delegates shall be the legislative body of this Association and shall consist of delegates elected by the component societies as well as all Past-Presidents of the Association who will serve as Delegates-at-Large. It shall elect a Speaker and Vice-Speaker from its body. Its Secretary shall be the Secretary of the Missouri State Medical Association.

ARTICLE V. COUNCIL

The Council shall be the executive body of this Association when the House of Delegates is not in session. It shall be the judicial body of the Association when matters are referred to it for decision by the Association, by component societies or by individual members thereof. It shall consist of the President, President-Elect, Immediate Past-President, Secretary, Treasurer and the duly elected Councilors from each Councilor District. Nine members shall constitute a quorum.

ARTICLE VI. SESSIONS AND MEETINGS

Section 1. The Association shall hold an Annual Session at a place fixed by the House of Delegates, the time of which shall be fixed by the Council.

Sec. 2. Special meetings of the Association or of the House of Delegates may be called by a two thirds vote of the Council and shall be called upon a petition signed by members equal in number to one third of the total number of delegates certified for the last Annual Session.

ARTICLE VII. OFFICERS

Section 1. The officers of this Association shall be a President, a President-Elect, three Vice-Presidents, a Secretary, a Treasurer, a Speaker and a Vice-Speaker of the House of Delegates and ten Councilors selected as provided for.

Sec. 2. All officers except Councilors shall be elected annually. The terms of Councilors shall be two years. Half of the membership of the Council shall be elected each year. The Secretary and the Treasurer shall be elected by the Council. The delegates present from each Councilor District shall meet prior to the last day of the Annual Session and elect the Councilor from that district. In the event of death, resignation or removal of any Councilor, the Council may appoint a successor to serve until the vacancy is filled at the next Annual Session. All of the officers shall serve until their successors are elected and installed.

ARTICLE VIII. FUNDS, EXPENSES AND BUDGET

Funds shall be raised by a per capita assessment on each component society. The amount of the assessment shall be fixed by the House of Delegates. Funds may also be raised in any other manner approved by the House of Delegates. The Council shall submit an annual budget to the House of Delegates. All resolutions providing for appropriations shall be referred to the Council and all appropriations approved by the Council shall be included in the annual budget.

ARTICLE IX. REFERENDUM

At any General Meeting of the Association it may, by a two thirds vote, order a general referendum upon any question pending before the House of Delegates. The House of Delegates may, by a vote of its members, submit any question to the membership of the Association for its vote. A majority vote of all members of the Association shall determine the question.

ARTICLE X. SEAL

The Association shall have a common seal. The power to change or renew the seal shall rest with the House of Delegates.

ARTICLE XI. AMENDMENTS

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates present and voting at any Annual Session, provided that such amendment shall have been presented in open meeting at the previous Annual Session and that it shall have been published twice during the year in the Journal of this Association or sent officially to each component society at least two months prior to the meeting at which final action is to be taken.

Bylaws

CHAPTER I. MEMBERSHIP

Section 1. Members of this Association shall be physicians whose names have been certified by secretaries of component societies to the Secretary of this Association that they are duly elected members of a component society and are legally qualified physicians practicing in Missouri except as otherwise provided. Each member must be of good moral and professional standing, and must not support, nor practice, nor claim to practice any exclusive system of medicine.

Sec. 2. No person who is under sentence of suspension or expulsion from any component society of this Association or whose name has been dropped from its roll of members shall be entitled to any of the rights or benefits of this Association.

Sec. 3. There shall be three classes of members as follow:

Active Members shall be limited to those members of component societies who (1) hold the degree of Doctor of Medicine or Bachelor of Medicine, and (2) if permitted by the bylaws of the component society, members who hold the degree of Doctor of Osteopathy, and (3) are entitled to exercise the rights of active membership in their component societies, as determined by their component societies, subject to the provisions of these Bylaws.

Junior members shall be limited to those members of component societies who are serving a full-time training internship or residency in a hospital approved by the American Medical Association and shall enjoy all of the privileges of active membership.

Honor members shall be limited to Honor members of component societies, which societies have requested that active members who have reached advanced years and have long served the Association and the profession be made Honor members of the Association. They shall enjoy all the privileges of active membership and shall be exempt from the payment of dues.

Sec. 4. **Associate members** shall be limited to persons not provided for in the various classes of membership who are engaged in the pursuit of a medical or allied science, and by action of the component societies, become Associate members of the Association. Associate members shall have the right to attend scientific sessions and such other privileges as may be extended to them by the House of Delegates. They shall not be eligible to vote and shall be exempt from the payment of dues.

CHAPTER II. GENERAL MEETINGS

Section 1. The General Meetings shall be open to all registered members and guests.

Sec. 2. Any paper read before this Association shall be considered for publication in the Journal if the Author so desires. Such papers may be given publication priority over regularly submitted papers but shall be subject to the same editorial review and selection policies.

Sec. 3. No person in the active practice of medicine in the State of Missouri shall appear on the program of the Association unless he or she is a member of the Missouri State Medical Association or an affiliated association or organization.

CHAPTER III. HOUSE OF DELEGATES

Section 1. The House of Delegates shall meet annually at the time and place of the Annual Session. It shall remain in continuous session on the first day of the Annual Session and complete the work coming before it at that session. It shall meet on the last day of the Annual Session to receive the report of the Nominating Committee and complete unfinished business and the election of officers. No new business shall be introduced at the last session without the unanimous consent of the delegates.

Sec. 2. Each component county society shall be entitled to send each year one delegate or one alternate to the House of Delegates for each fifty full paid members or fraction thereof in the Association on December 31 of the previous year, plus one additional delegate or alternate for each one hundred members or a major fraction thereof; provided, however, that each component society which is composed of two or more county societies shall be entitled to at least one delegate from each of the counties of which it is composed; and provided that when two or more counties hereafter combine into a hyphenated society, such society shall not lose any delegates by reason thereof; however, such delegates must reside or practice in the county they represent. Alternate delegates may be elected from the entire membership of the component medical societies. All Past-Presidents of the Association shall serve as Delegates-at-Large.

Sec. 3. Forty delegates shall constitute a quorum of the House of Delegates. All meetings of the

House of Delegates shall be open to members of the Association.

Sec. 4. From among members of the House of Delegates the Speaker shall appoint reference committees to which reports and resolutions, on a majority vote of the House of Delegates, shall be referred as follows:

Reference Committee on Amendments to the Constitution and Bylaws.

Reference Committee on Resolutions.

Reference Committee on Miscellaneous Affairs.

Reference Committee on Medical Education and Public Welfare.

Reference Committee on Reports of Officers.

The Speaker may appoint such other reference committees as he may deem necessary, upon approval of the House of Delegates.

The President shall appoint a Committee on Credentials.

Sec. 5. The House of Delegates shall elect delegates and alternates to the House of Delegates of the American Medical Association in accordance with the Constitution and Bylaws of that body.

Sec. 6. The House of Delegates shall divide the state into Councilor Districts specifying what counties each district shall include and, when the best interest of the Association and the profession will be promoted thereby, organize in each a district medical society of which all members of the component county societies shall be members.

Sec. 7. The House of Delegates shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates. Such committees shall report to the House of Delegates and may be present and participate in the debate on their reports.

Sec. 8. The House of Delegates shall receive and act upon a complete and detailed annual audit of receipts and expenses of the preceding year and a proposed budget for the current calendar year which shall have been prepared by the Council and submitted to the component county societies at least four weeks prior to the Annual Session. These shall be published in the Journal.

Sec. 9. The following shall be the general order of business of the House of Delegates for the first meeting of the session:

1. Call to order by the Speaker.
2. Report of the Committee on Credentials.
3. Roll call.
4. Reading and adoption of minutes.
5. Report of officers.
6. Report of committees.
7. Unfinished business.
8. New business.

The following shall be the general order of business of the House of Delegates for the last meeting of the session:

1. Call to order by the Speaker.
2. Report of the Committee on Credentials.
3. Roll call.
4. Reading and adoption of minutes.
5. Report of the Nominating Committee.
6. Election of officers.
7. Reports of officers.
8. Reports of committees.
9. Unfinished business.
10. New business (see Sec. 1, Chap. III).
11. Installation of officers.
12. President's appointments and installation of members to committees.
13. Selection of the place for the next Annual Session.

At any meeting of the House of Delegates, the order of business may be changed by a two thirds affirmative vote of the members present and voting.

Chapter IV. Election of Officers

Section 1. The President on the first day of the Annual Session shall select a Committee on Nominations consisting of ten delegates, no two of whom shall be from the same Councilor District. The Committee on Nominations shall report the result of its deliberations to the House of Delegates in the form of a ticket containing the name of one member for each of the offices listed in Article VII of the Constitution which are to be filled at that Annual Session excepting the President-Elect who shall be nominated from the floor of the House of Delegates.

Sec. 2. All elections of officers shall be by acclamation unless ballot is called for. A majority of the votes cast shall be necessary to elect except for delegates and alternates to the American Medical Association, who shall be elected as follows:

In case no delegates or alternates for the American Medical Association receive on the first ballot a majority of the votes, the nominees shall be declared elected in the order of the highest number of votes received until the allotted number shall have been chosen. In case of a tie vote for delegate or alternate, the tie shall be determined by lot.

In case no nominee for general offices of the Association (see Article VII, Constitution) receives a majority of the votes on the first ballot, the nominee receiving the lowest number of votes shall be dropped and a new ballot taken. This procedure shall be continued until one of the nominees receives a majority of all the votes cast, when he shall be declared elected.

Sec. 3. Nothing in this chapter shall be construed to prevent additional nominations being made from the floor by members of the House of Delegates.

Sec. 4. Delegates present at the Annual Session from Councilor Districts whose Councilors' terms expire shall hold meetings on or before the morning of the last day of the Annual Session and elect a Councilor for their District for a term of two years. The name of the elected Councilor shall be given on a prescribed form to the Secretary for presentation to the House of Delegates. Each candidate for Councilor must reside or practice in the district for which he is elected.

Sec. 5. The Speaker and Vice-Speaker shall not serve more than three consecutive terms.

Sec. 6. The Speaker shall appoint a parliamentarian to serve as such during the session of the House of Delegates at each Annual Session and upon whom the Speaker may call before deciding points of order or procedure.

CHAPTER V. DUTIES OF OFFICERS

Section 1. The **President,** or his designated representative, shall preside at all scientific sessions of the Association. He shall preside at the House of Delegates in the absence of the Speaker or Vice-Speaker and until their successors are elected. He shall appoint all committees not otherwise provided for. He shall deliver an annual address at such time as may be arranged and shall perform such other duties as custom or parliamentary usage requires. He shall be the real head of the profession of the state and assist the Councilors in building up the county societies and in making their work more practical and useful.

Sec. 2. The **President** and the **President-Elect** shall be members of the Council and shall attend all meetings of the Council. Should the office of President-Elect become vacant through death or otherwise the Council may fill the vacancy until the next Annual Session of the Association.

Sec. 3. The **Vice-Presidents** shall assist the President in the discharge of his duties. In the event of the death, resignation or removal of the President the Council shall select one of the Vice-Presidents to serve the unexpired term.

Sec. 4. The **Treasurer** shall give bond in the sum of $20,000. He shall demand and receive all funds due the Association, together with bequests and donations. He shall pay money out of the treasury only on a written order of the President, countersigned by the Secretary; he shall subject his accounts to such examination as the House of Delegates may order, and he shall annually render an account of his actions and of the state of the funds in his hands.

Sec. 5. The **Secretary** shall attend the General Meetings of the Association and the meetings of the House of Delegates, and shall keep minutes of their respective proceedings in separate record books. He shall be Secretary of the Council and shall keep a record of its proceedings. He shall be custodian of all record books and papers belonging to the Association, except such as properly belong to the Treasurer, and shall keep account of and promptly turn over to the Treasurer all funds of the Association which come into his hands. He shall provide for the registration of the members and delegates at the Annual Session. He shall, with the cooperation of the secretaries of the component societies, keep a card index register of all the legal practitioners of the state by counties, noting on each his status in relation to his county society, and shall transmit a copy of this list to the American Medical Association, transmitting to its Secretary each month a report containing the names of new members and the names of those dropped from the membership roster during the preceding month. He shall conduct the official correspondence, notifying members of meetings, officers of their election and committees of their appointment and duties. He shall employ such assistants as may be ordered by the Council and shall make an annual report to the House of Delegates. He shall supply all component societies with the necessary blanks for making their reports and shall collect from them the regular per capita dues and assessments and turn the same over to the Treasurer. The amount of his salary shall be fixed by the Council.

CHAPTER VI. COUNCIL

Section 1. The Council shall meet during the Annual Session at such times as necessity may require, subject to the call of the Chairman or on petition of three Councilors. It shall meet on the last day of the Annual Session to organize. The Council shall elect a Chairman and a Vice-Chairman for a term of one year. The Chairman may be re-elected to serve not more than four consecutive terms of one year each. The Council shall, through its Chairman, make an annual report to the House of Delegates.

Sec. 2. Each Councilor shall be organizer, peacemaker and censor for his district. He shall visit each county in his district at least once a year for the purpose of organizing component societies where none exists, for inquiring into the condition of the profession, and to keep in touch with the activities of and to aid in the betterment of the component societies of his district. He shall make reports of his work and the condition of the profession of each county in his district to the Council. The necessary traveling expenses incurred by each Councilor in the line of duties herein imposed may be allowed on a proper itemized statement submitted monthly and within the current year, but this shall not include his expense in attending the Annual Session of the Association. No Councilor shall be eligible for the position of Delegate to the House of Delegates during his term of office as Councilor, nor shall he vote in the House of Delegates.

Sec. 3. The Council shall be the executive body of the House of Delegates and between sessions shall exercise the power conferred on the House of Delegates by the Constitution and Bylaws.

Sec. 4. The District Councilor together with two members of component societies within the Council District, selected by the Councilor, shall serve as a Board to hear and by a majority vote adjudicate any questions involving the right and standing of members, either in relation to other members or to component societies or to the Association, and all matters of discipline affecting the conduct of members of component societies, or other matters.

The Council shall be the appellate Board of Censors of the Association. It shall hear and adjudicate all matters on appeal from the decision of the Councilor Board; it shall hear and adjudicate matters of an ethical nature brought before the House of Delegates or the general meeting which shall be referred to the Council without discussion. On original decision or appellate determination, its decision shall be final unless appealed to the then convened meeting or the next meeting of the House of Delegates.

Sec. 5. Charters shall be issued to county societies only on approval of the Council, and shall be signed by the President and Secretary of this Association. Upon the recommendation of the Council, the House of Delegates may revoke the charter of any component society whose actions are in conflict with the letter or spirit of this Constitution and Bylaws.

Sec. 6. In sparsely settled sections the Council shall have authority to organize the physicians of two or more counties into societies, to be suitably designed so as to distinguish them from district societies, and these societies, when organized and chartered, shall be entitled to all rights and privileges provided for component societies until such counties shall be organized separately.

Sec. 7. The Council shall provide for and supervise the issuance of all publications of the Association including proceedings, transactions and memoirs, and shall have authority to appoint an Editor and such assistants as it deems necessary. It shall prescribe the methods of accounting and through a committee of three of its members, to be known as a Committee on Auditing and Appropriations, shall audit all accounts of this Association. The Council shall adopt an annual budget providing for the necessary expenses of the Association for the following calendar year. This budget shall be prepared and presented for consideration in the last quarter of each year by the Committee on Auditing and Appropriations. A complete and detailed report shall be submitted to the component county medical societies as provided in Section 8, Chapter III. The Council shall submit an annual report of the House of Delegates which shall specify the character and cost of the publications of the Association, the amount and character of all its property, and shall provide full information concerning the management of all affairs of the Association which the Council is charged to administer.

Sec. 8. The Council shall appoint at least six months before the Annual Session, a committee consisting of three of its members to be known as the Committee on Arrangements for the Annual Session. On recommendation of the Committee, the Council shall appoint a general chairman of a Local Committee on Arrangements, who shall be a member of the component society of the county in which the Annual Session is to be held, and who shall appoint and organize from the members of this county society the personnel of the Local Committee on Arrangements. The Local Committee on Arrangements shall provide suitable meeting places and shall have general charge of all local arrangements subject to the approval of the Committee on Arrangements for the Annual Session. All receipts and disbursements related to the Annual Session shall be handled by the Committee on Arrangements on recommendations of the Committee on Budget and Appropriations.

Sec. 9. The Council shall by appointment fill any vacancy in office not otherwise provided for which may occur during the interval between Annual Sessions of the House of Delegates; the appointee shall serve until his successor has been elected and has qualified.

Sec. 10. The salaries of all employees of the Association shall be fixed by the Council.

Sec. 11. The Council shall provide such headquarters for the Association as may be required to conduct its business properly.

Sec. 12. The Council shall be empowered to elect an Executive Secretary and Assistant Executive Secretary and such other personnel as may be necessary, who need not be members of the Missouri State Medical Association, each of whom shall perform such duties as the Council may designate and receive such salary and serve for such periods and under such conditions as the Council may determine.

CHAPTER VII. COMMITTEES AND COMMISSIONS

Section 1. Standing Committees of the Missouri State Medical Association, the chairman of which shall be appointed by the Association President unless otherwise provided in these Bylaws, will be as follows:

Executive Committee.
Committee on Constitution and Bylaws.
Committee on Publication.
Committee on Legislative Affairs.
Committee on Planning.
Committee on Voluntary Health Agencies.

The **Executive Committee** shall consist of the Association President, President-Elect, Secretary, Treasurer, Council Chairman and Council Vice-Chairman. The President of the Association shall be Chairman of the Executive Committee. The Executive Committee shall plan and execute such work as may be necessary for the welfare of the Association and the conduct of the Executive Secretary's Office between meetings of the Council, but shall be responsible at all times to the Council.

The Committee on **Constitution and Bylaws** shall consist of five members named by the President and shall propose such amendments to the Constitution and Bylaws as are deemed wise and expedient, and bring before the House of Delegates such amendments as it or other members of the Association may present for consideration. The President shall appoint one member for one year, two members for two years and two members for three years. As the term of each expires, his successor shall be appointed for a term of three years.

The Committee on **Publication** shall consist of five members and be appointed annually by the Council and shall be responsible for general publication and distribution policies of the Journal. The Editor of the Journal shall be designated by the Council and also shall serve as Chairman of the Committee on Publication. The Editor shall be empowered to nominate an Editorial Board, subject to approval by the Council. The members of the Editorial Board will assist the Editor in soliciting, preparing and reviewing material for publication in the Journal.

The Committee on **Legislative Affairs** shall consist of five members of the Association, appointed annually by the President. The Committee shall consider legislative proposals affecting health problems of the people of the state and the practice of medicine and shall make recommendations to the Council and the House of Delegates as well as directing staff activities in such matters.

The **Planning Committee** shall consist of ten members to be appointed by the President. Two members shall be appointed for one year, two for two years, two for three years, two for four years and two for five years. As the term of each expires, his successor shall be appointed for a term of five years. In making such appointments, the President shall be governed by experience of the member, the size of his medical society and his geographical area, so as to have a representative committee. Age of the members shall be considered to the end that one-third to one-half of the committee shall be of an age group that should contemplate ten to twenty years more of active practice.

The Committee on **Voluntary Health Agencies** shall consist of five members of the Association appointed by the President. Two members shall be appointed for three years, two members for two years and one member for one year. As the term of each expires, his successor shall be appointed for a term of three years. The Committee on Voluntary Health Agencies shall provide liaison and work with all voluntary health organizations.

Section 2. Standing Commissions of the Missouri State Medical Association, who shall be responsible to the Council and whose chaiman shall be appointed by the Association President, will be as follows:

Commission on Public Affairs.
Commission on Medical Economics, Third Party and Governmental Relations.
Commission on Continuing Education and Health Manpower.
Commission on Medical-Legal Affairs.
Commission on Interspecialty Medicine.

Subsection a. The standing Commissions, unless otherwise provided in these Bylaws, shall consist of fifteen members serving three-year terms and the terms will be staggered so that the President will appoint five members of each Commission each year. Initially, the President will appoint five members to one-year terms, five members to two-year terms and five members to three-year terms and no member shall serve more than two consecutive terms.

Subsection b. The Chairman of each Commission may appoint Ad Hoc Committees to carry out the Commission's programs. These Ad Hoc Committees may include any Missouri State Medical Association member.

Subsection c. The Chairman of the Council shall appoint each year an appropriate Councilor to serve as advisor to each respective Commission.

The Commission on **Public Affairs** shall plan and execute programs designed to enhance the relationship between the public and the medical profession. The Commission shall have responsibility in the fields of industrial health, environmental health, medicine and religion, trauma, disaster medical care and national defense and other public matters.

The Commission on **Medical Economics. Third Party Medicine and Governmental Relations** shall keep close liaison and work with peer and utilization review mechanisms, insurance intermediaries and governmental agencies.

The Commission on **Continuing Education and Health Manpower** shall determine the character and scope of the scientific proceedings of the Association for each annual session as well as to make all arrangements for such annual sessions, subject to the instructions of the House of Delegates. The Commission shall also be responsible for the entire continuing education program of the Association, shall have all matters pertaining to hospitals referred to it, shall carry on all programs in the recruitment of health manpower in professional as well as in allied health fields and shall be responsible for programs in the rural health field.

The Commission on **Medical-Legal Affairs** shall investigate and study medical-legal matters affecting the practice of medicine, make recommendations to the Council and House of Delegates and also make certain that all Association members are kept informed of important developments in this field. The Commission also may work with similar groups formed by the State Bar Association on matters of joint interest and concern as well as with governmental and insurance agencies in this field.

The Commission on **Interspecialty Medicine** shall be composed of one representative of each statewide specialty group as recognized by the Association Council. The President of the Missouri State Medical Association shall appoint annually to the Commission a representative from each of the authorized groups as submitted to him by the specialty organization. In the event that such a nominee is not submitted to him by an organization, the Association President may designate a member of that specialty group to serve on the Commission.

The Commission shall be charged with the responsibility of reviewing organization problems with respect to scientific programs, socio-economic and legislative matters that affect their particular specialties; in addition the Commission shall have the responsibility for programs and activities in fields relating to disease and health services involving the citizens of our state and such other matters as the Council shall direct. Also, the Commission shall provide close liaison between the various specialty organizations and the Missouri State Medical Association.

Section 3. Fifty percent of a Committee or a Commission should be present at an official meeting to constitute a quorum.

Section 4. Special committees may be appointed by the President or the Council as circumstances may demand.

CHAPTER VIII. DUES AND ASSESSMENTS

Section 1. (a) The annual dues of this Association shall be $65.00, which shall be applicable to each active member of the Association beginning in 1970 and shall be levied per capita on the active members of the component societies; the per capita levy for junior members shall be $10.00 per year; honor and associate members shall not be required to pay dues. Dues shall be payable on January 1 of the year for which they are levied.

(b) An assessment of $10.00 per year on each active member of the Association shall be applicable for a three-year period beginning in 1972. The assessment shall be payable with the dues of the Association, and the monies collected therefrom shall be remitted to the Missouri State Medical Foundation.

Sec. 2. Three dollars of the annual dues shall be credited to the account of the Journal for each member's annual subscription. The remainder of the amount shall be credited to the general fund of the Association.

Sec. 3. The House of Delegates may, when in its judgment the best interest of the Association demands, recommend an assessment on each active and junior member. Such assessment shall be levied only by consent of two thirds of the members of the House of Delegates present and voting. Funds obtained from such special assessments shall be allocated only for the purposes for which such assessment is levied and in accordance with substantiating budgets. Unexpended balances from such assessments must be reported to the House of Delegates for re-allocation.

Sec. 4. The secretary of each component society shall cause to be collected and remitted to the Treasurer of this Association the per capita levies. Any member whose name has not been reported for enrollment and whose dues have not been remitted to the Treasurer of this Association on or before March 1 shall stand suspended until his name is properly reported and his dues for the current year are paid. On December 31 of each year, members delinquent in payment of dues, and assessment if such has been made, or any part thereof shall, ipso facto, forfeit their memberships. No suspended member shall be eligible to register at an annual session.

Chapter IX. Rules of Conduct

The ethical principles governing the members of the American Medical Association shall govern members of this Association.

Chapter X. Rules of Order

The deliberations of this Association shall be conducted in accordance with parliamentary usage as defined in *Robert's Rules of Order.*

Chapter XI. County Societies

Section 1. All county societies now in affiliation with the State Association or those that may hereafter be organized in this state, which have adopted principles of organization not in conflict with this Constitution and Bylaws shall, upon application to the Council, receive charters from this Association provided that their Constitutions and Bylaws shall have been submitted to the Council and received its approval.

Sec. 2. Only one component medical society shall be chartered in each county.

Sec. 3. Each county society shall judge of the qualifications of its members, subject to review and final decision by the Council of the State Association. Every reputable and legally qualified physician who does not practice, nor profess to practice sectarian medicine, and who resides or practices in the same county, who shall apply for membership on the prescribed form and subscribe for the Journal and pay the annual dues and assessments for the current year, shall be eligible for election to membership.

A member of a component society whose license has been revoked shall be dropped from membership automatically as of the date of revocation. The Council of the State Association shall have final authority to expel a member should a component county society fail to do so after being so requested by the Council.

The Council may upon request of a component society remit the state dues and assessment of a member who has become totally and permanently incapacitated through mental or physical disability and has been a member in good standing during the three consecutive years immediately preceding his disability; provided, that the component society shall remit the county society dues of such member.

The Council may, upon request of a component society, remit the state dues and assessments of a deserving member, found to fall within what is classified as a hardship case, during the period of said hardship until such time as the dues again become payable; provided that the component society shall remit the county society dues of such member.

The Council may, upon the request of a component society, waive the dues of any member in good standing for such a period as the member is serving in the Armed Forces of the United States of America, or similar service with any of the allies of the United States, and for six months thereafter.

A physician living near a county line may hold his membership in that county most convenient for him to attend, on permission of the component society in whose jurisdiction he resides.

Sec. 4. Any physician who may feel aggrieved by the action of the society of his county in suspending or expelling him shall have the right to appeal to the Council whose decision shall be final. A county society shall at all times be permitted to appeal or refer questions involving membership to the Council of the State Association for final determination.

Sec. 5. In hearing appeals the Council may admit oral or written evidence or both as in its judgment will most fairly present the facts.

Sec. 6. When a member in good standing in a component county society moves to another county in this state, he shall be given a written certificate of these facts by the secretary of his society, without cost, for transmission to the secretary of the society in the county to which he moves. Pending his acceptance or rejection by the society in the county to which he moves such member shall be considered to be in good standing in the county society from which he was certified and in the State Association to the end of the period for which his dues have been paid.

A member of a component society who moves to and engages in the practice of medicine at a location in another county in which there is a component society shall forfeit his membership in this Association and the Secretary shall remove his name from the roster of members of the Missouri State Medical Association unless within one year after such change of residence he becomes a member of the component society in the county to which he has moved.

Sec. 7. Each county society shall have general direction of the affairs of the profession in the county, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county. Systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it includes every eligible physician in the county.

Sec. 8. At some meeting in advance of the Annual Session of this Association, each component county society shall elect one or more delegates and an equal number of alternates therefor to represent it in the House of Delegates of this Association, in accordance with Chapter III, Section 2 of these Bylaws. The secretary of each county society shall send a list of such delegates and alternates to the Secretary of this Association at least sixty days before the Annual Session. Representation in the House of Delegates shall be contingent on compliance with the foregoing provisions.

Sec. 9. The secretary of each county society shall keep a roster of its members and, if practicable, a list of non-affiliated physicians, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this state, and such other information as may be deemed necessary by the Council. He shall send a copy of the program of each meeting to his district councilor and to the Secretary of the State Association.

Sec. 10. Any county component society, in a manner approved by the State Association, or the State Association with the consent of the county society or societies affected, may undertake, organize and put into effect plans for the medical care of indigent persons or indigent groups, and low income groups, by agreements with physicians, public officials or others and by the use of contributions, cooperative funds or other means; provided, however, that a free choice of the available and participating physicians in that territory shall be allowed to the patient and that all relationships, legal or otherwise, between the physician and the patient shall be and remain as though it were strictly an individual employment.

Chapter XII. Amendments

Section 1. These Bylaws may be amended at any Annual Session by a two-thirds vote of the delegates present and voting at that session, if the proposed amendment has been properly submitted to the House of Delegates and has laid on the table for one day.

Sec. 2. Upon the adoption of this Constitution and these Bylaws all previous constitutions and bylaws are thereby repealed.

Before deciding to make Valium (diazepam) part of your treatment plan, check on whether or not the patient is presently taking drugs and, if so, what his response has been. Along with the medical and social history, this information can help you determine initial dosage, the possibility of side effects and the ultimate prospects of success or failure.

While Valium can be a most helpful adjunct to your counseling, it should be prescribed only as long as excessive psychic tension persists and should be discontinued when you decide it has accomplished its therapeutic task. In general, when dosage guidelines are followed, Valium is well tolerated (see Dosage). For convenience it is available in 2-mg, 5-mg and 10-mg tablets.

Drowsiness, fatigue and ataxia have been the most commonly reported side effects.

Until response is determined, patients receiving Valium should be cautioned against engaging in hazardous occupations requiring complete mental alertness, such as driving or operating machinery.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

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Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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MSMA NEWS ROUND-UP

August, 1972

Physician fee screens under Phase II guidelines updated by Commission

The Price Commission ruled that Medicare fee screens in effect on Nov. 13, 1971, constitute base prices and that these screens should not be increased by more than 2-1/2 percent in the aggregate during fiscal year 1973.

It is estimated that the charges allowed under the Medicare Program would have risen approximately 6.2 percent in the aggregate during the fiscal year if the standard updating procedures were followed. Therefore, to implement the Price Commission's ruling, only 40 percent (2.5 is about 40 percent of 6.2) of the increases that would ordinarily have been allowed during fiscal year 1973 can be recognized in calculating allowable charges for the new fiscal year.

The Price Commission's ruling on allowable charges under Medicare, like the Commission's other policies, is designed to achieve holding average price increases for the economy, minimize unemployment, and to hold the rate of inflation to not more than two or three percent by the end of 1972.

Reasonable charges applicable to claims received by carriers under the Medicare Program on or after July 1, 1972, will be calculated in accordance with the following general rules:

- The reasonable charge for a service based upon 1971 charges will be computed using the ordinary rules for determining a physician's customary charge and the area prevailing charges for the service.
- This reasonable charge will be compared to the reasonable charge derived from the customary and prevailing based upon 1970 charges that were in effect for fiscal year 1972.
- If there has been an increase in the new reasonable charge, only 40 percent of this amount will be recognized.

Dr. Hector W. Benoit

Dr. Vernon E. Wilson

Two MSMA members elected to national council positions

Two Missouri State Medical Association members were elected to national council positions at the AMA annual meeting in San Francisco.

Vernon E. Wilson, M.D., dean and director of the University of Missouri Medical Center in Columbia from 1959 to 1967, was re-elected to the AMA Council on Medical Education for a five-year term. He has been on the AMA Council since 1967.

Hector W. Benoit, Jr., M.D., of Kansas City, was nominated from the floor of the convention and outpolled a four-candidate slate to gain a one-year term on the AMA Council on Medical Service.

Wilson, who also served as Vice President of Academic Affairs for the University from 1968 to 1970, is currently Administrator of Health Services and Mental Health Administration, U.S. Department of Health, Education and Welfare, Washington, D.C.

Dr. Benoit, a thoracic and cardiovascular surgeon, is a Fellow in the American College of Surgeons, a Past President of the Missouri State Medical Association and has been a delegate to the AMA since 1968.

Diapulse units have been seized in FDA action

Two Diapulse Devices, which are used to produce deep heat treatment, were seized recently by the FDA and the manufacturer, Diapulse Corporation of America, was permanently enjoined from shipping or selling its product in interstate commerce.

The seizure of units from a Norfolk, Va., hospital is the first of a number of seizure actions the FDA expects to take in regard to Diapulse Devices.

The Diapulse resembles a conventional Diathermy machine. Over 4,000 Diapulse units have been sold. Purchasers include hospitals, clinics, medical doctors and other practitioners.

The FDA has concluded that on the basis of laboratory and clinical tests, there are no known therapeutic benefits to be derived from the use of Diapulse treatment. In October 1969, the government stopped paying claims under Medicare for Diapulse treatment.

Move over Jack Nicklaus!!

William A. Cox, M.D., of Jefferson City, joined the exclusive "hole-in-one club" recently when he shot an ace on the par-three, 150-yard 8th hole at the Jefferson City Country Club course.

Physicians from across the state are invited to join the "hole-in-one club." All that is required for membership is to inform MSMA headquarters and, of course, score an ace.

NMA to meet in Kansas City

Between 1,200 and 1,500 physicians are expected to attend the National Medical Association Convention in Kansas City, Aug. 13-17.

Sessions will be held at the Municipal Auditorium with convention headquarters at the Muehlebach Hotel. Roland B. Scott, M.D., of Howard University, a former Kansas Citian, will be in charge of a plenary session on sickle cell anemia.

Emerson C. Walden, M.D., of Baltimore, Md., is president of the NMA. Edmond C. Casey, of Cincinnati, Ohio, is president-elect.

Rapid Press Release success depends on ALL physicians

Medical related articles are taking a lar and larger share of space in the news tod Much of the news is factual and informati However, in some cases, a news article may based on insufficient or misinterpreted inform tion.

When an article actually offers "misinform tion" to the public, it is the responsibility of medical profession to present the true and co plete facts on the subject.

A Committee on Rapid Press Releases w appointed at the June Council meeting to c with the situation. The committee is compo of the MSMA President, who is to work with staff concerning which articles need MSMA sponse and what the response will be.

For the committee to function effectively will require input from physicians through Missouri. Neither the President nor the st can monitor all the news media in the state.

Quick notification to the committee is e sential if a "rapid response" is to be given press. If a physician reads or hears a ne account which he believes to be misinformi he should contact the president of his coun society immediately.

Then, either the physician or the coun society president should telephone MSMA Jefferson City at 314-636-5151.

The staff will forward the information to t MSMA President immediately and, if the Pres dent recommends a response, will compose news release on the subject. The release may of statewide interest or be limited to the ar where the original "misinformation" was di tributed.

The MSMA, of course, cannot assure th "rapid responses" will be used by the medi That is a matter for editors and broadcast d rectors to decide.

However, the material will be made avai able to the media along with an explanation why it should be used.

Questions concerning operation of the Con mittee on Rapid Press Releases should be d rected to the Public Relations Director, Mi souri State Medical Association, P.O. Box 102 Jefferson City, Mo., 65101.

'M.D. Day' scheduled

"M.D. Day" will be held November 17-1 at the University of Missouri-Columbia. Th Tigers will play host to the Iowa State Cyclone in a Big Eight Conference game.

Today you have your own.

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Maybe as much as 14 years.

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On the one hand, you know that diet weight control are the initial and essential ndations for the management of adult- et, non-ketotic diabetes. When these asures prove satisfactory, no additional rapy is indicated. On the other hand, you w that if these measures fail the addition of Orinase to the regimen can often help lower blood sugar. Orinase lowers blood sugar as effectively today as it did when you first prescribed it.

You also know the importance of close monitoring of the patient. Although uncommon, severe hypoglycemia may occur if the dosage is not tailored to suit his requirements.

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an daily, and during the first month report at least once weekly physical examination and definitive evaluation. After a month, aminations are recommended monthly or as indicated. Ap- arance of ketonuria, increase in glycosuria, unsatisfactory wering or persistent elevation of blood sugar, or failure to tain and hold clinical improvement indicate nonresponsive- ss to Orinase (tolbutamide). Orinase does not obviate need for aintaining standard diet regulation. Uncooperative patients ould be considered unsuitable for therapy. Prescriptions should refilled only on specific instruction of physician. In treating ld asymptomatic diabetic patients with abnormal glucose lerance, glucose tolerance tests should be obtained at three- six-month intervals. Orinase is not an oral insulin or a substi- te for insulin and must not be used as sole therapy in juvenile abetes or in diabetes complicated by acidosis or coma where sulin is indispensable.

If phenformin is prescribed in combination with Orinase, ap- opriate package literature should be consulted.

Adverse Reactions: Severe hypoglycemia, though uncommon, ay occur and may mimic acute neurologic disorders such as rebral thrombosis. Certain factors such as hepatic and renal sease, malnutrition, advanced age, alcohol ingestion, and renal and pituitary insufficiency may predispose to hypogly- mia and certain drugs such as insulin, phenformin, sulfona- ides, oxyphenbutazone, salicylates, probenecid, monamine xidase inhibitors, phenylbutazone, bishydroxycoumarin, and henyramidol may prolong or enhance the action of Orinase and crease risk of hypoglycemia. Orinase long-term therapy has een reported to cause reduction in RAI uptake without producing clinical hypothyroidism or thyroid enlargement and at high doses is mildly goitrogenic in animals. Photosensitivity reactions, disulfiram-like reactions after alcohol ingestion, and false-positive tests for urine albumin have been reported.

Although usually not serious, gastrointestinal disturbances (nausea, epigastric fullness, and heartburn) and headache appear to be dose related and frequently disappear with reduction of dose or administration with meals. Allergic skin reactions (pruritus, erythema, urticaria, and morbilliform or maculopapular eruptions) are transient, usually not serious, and frequently disappear with continued administration. Orinase should be discontinued if skin reactions persist. Recent reports indicate that long-term use of Orinase has no appreciable effect on body weight.

Orinase appears to be remarkably free from gross clinical toxicity: crystalluria or other renal abnormalities have not been observed; incidence of liver dysfunction is remarkably low and jaundice has been rare and cleared readily on discontinuation of drug (carcinoma of the pancreas or other biliary obstruction should be ruled out in persistent jaundice); leukopenia; agranulocytosis; thrombocytopenia; hemolytic anemia; aplastic anemia; pancytopenia; and hepatic porphyria and porphyria cutanea tarda have been reported.

Supplied: *0.5 g. Tablets*—bottles of 50, 200, 500, and 1,000, and cartons of 100 in foil strips.

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THOMAS P. WEIL, Ph.D., ***Columbia***

The Nonurban Hospital in Missouri: Present Program Problems and Possible Alternatives

Part I

NEWSPAPERS and weekly magazines are cluttered with reports and stories that there are almost insoluble health delivery problems in the rural areas and in the central core of all our major American cities. The 89th Congress passed the most monumental health programs in the history of our nation with Medicare, Medicaid, the Comprehensive Health Planning Act, the Regional Medical Programs, the Model City and the Office of Economic Opportunity legislation, yet the person in the rural areas of the state of Missouri has witnessed few modifications in the provision of medical care. Now, the Nixon Administration is hoping for the establishment of health maintenance organizations and the subsidy of voluntary health insurance. The American Hospital Association has recommended health care corporations and the American Medical Association has made other suggestions to modify the present approach of planning, organizing, financing and distributing health services. Those "in the bush" wonder whether any new program or concept is going to actually improve the delivery of their health services.

There are now more than 30 million persons in the United States living in rural and nonurban areas. Those residing in the country ideally would be provided a broad comprehensive spectrum of health services and facilities not too distant from their homes. Most nonurban residents are willing to travel to major medical centers for the complicated procedures, but they wonder why it is necessary to wait many hours in a physician's office, be admitted to a hospital which too frequently has radiology and pathology coverage on a twice a week basis, be discharged to a marginal nursing home or find there is no home health-visiting nurse service in the county. This is in spite of the facts that we are spending more than $70 billion for health care in the U.S. and by far the highest percentage of the gross national product of any nation in the world.

The blacks in our major cities are demanding a more effective and efficient delivery of health services. Likewise, at this time, we are now approaching an era in our state legislatures, which still have sizable rural constituencies, in which one senses an increasing thrust to assure health services in "the country" similar to health services of our suburban areas. The educated farmer with the large acreage and the industrialist having an M.B.A. with the small factory "in the bush" are starting to articulate their needs to their representatives at the state capitol in much the same way as ghetto groups are complaining about their lack of a suitable health delivery system. Some of us sense that the urgency to solve rural health problems is as serious today as it is to resolve them in the ghetto.

PURPOSES

The purposes of this paper are as follows: (a) to summarize the hospital and health need studies undertaken by the faculty and students of Graduate Studies in Health Services Management, University of Missouri—Columbia[1] during the 1968-1971 period and (b) to suggest some possible solutions for the future. During the past 48 months, intensive studies have been undertaken in areas such as Boonville, Fredericktown, Hermann, Jefferson City, Marceline, Marshall, Mexico, Moberly, Rolla, St. Joseph, Sedalia, Sikeston and Sweet Springs. Although most of these endeavors have been in the Central Missouri area, the St. Joseph study covered Northwestern Missouri and the Sikeston undertaking included major sections of the southeastern portion of the state.

Eleven of these thirteen studies were undertaken by the second-year graduate students in health services management as part of their academic endeavors so that their theoretical, classroom lectures and discussions could be applied to a given local or regional situation. In all cases, the study was financially supported and assisted by the local hospital governing board, medical staff and administration. This has been a tremendous educational experience for the students and has been interpreted at the local level as one of the services provided by the state university.

These community-regional-oriented health- and hospital-need studies generally reviewed (a) the population and demographic data in the area and their implications to the improved delivery of health services; (b) the hospital service area, patient and operating statistics; (c) an inventory and personal visits to all health facilities and services in the region; (d) discussions with community leaders, physicians, and hospital employees; (e) questionnaires sent to discharged patients, random samples of those listed in the telephone directory, or to members of the local chamber of commerce; (f) analyses of physical plants on a department-by-department basis; (g) a program plan based on local needs and resources was developed; and (h) recommendations and a plan for implementation were then suggested. It is on the basis of these data and information from these 13 separate reports, covering approximately one third of the area of the state of Missouri that this paper is being written.

The major limitation of this paper is that the major findings and possible solutions are based on 13 studies and may not be entirely applicable to each specific situation. One has to tailor the comments to a given location, although the generalizations are thought to be representative of non-urban problems in Missouri and probably to many other rural portions of the U. S.

POPULATION AND OTHER DEMOGRAPHIC DATA

Numerous national health and medical care studies have shown that an above-average utilization of health services and facilities in a region are related to a stable economy, a high level of employment, average or above the national average of personal income, a high average level of education and an increasing number of new home starts. An increase in the number of births in a community suggests the potential need for more pediatric beds. Areas having more than 10% to 12% of the population 65 years of age and over generally require more extended care and nursing home beds than the national norm.

Not only is nonurban Missouri losing total population, but the average age of those remaining is significantly increasing. Reviewing the change in age-specific composition of the nonurban areas over the last three decades allows one to conclude that after high school graduation, one half of the students leave the county for educational or job opportunities, probably never to return again. The cities in rural Missouri are generally increasing in population, while the county areas are decreasing, suggesting that professionally managed farm acreages serviced by large motorized equipment are rapidly replacing small landowners. One senses that many elderly farmers are selling their land and moving to the major city within the county. The major aspiration for many of these counties is to retard the out-migration of the young and to attract industries that require a high percentage of professional and technical employees, rather than those needing unskilled manpower.

Evidence indicates that the urgency to solve health delivery problems in rural areas in the United States today is as serious as it is in the ghetto. Thus, programmatic problems of nonurban hospitals in Missouri are gaining the increasing attention of the medical profession. This two-part article presents a summary of hospital- and health-need studies made by the faculty and students of Graduate Studies in Health Services Management at the University of Missouri-Columbia and suggests possible solutions for the future. It considers the various political, social and economic forces and alerts the physician to activities of various investigating and planning groups.

Doctor Weil was Professor of Community Health and Director, Graduate Studies in Health Services Management, Schools of Medicine and Business and Public Administration, University of Missouri at the time this article was written.*

Generally, these areas have obtained most of their income from the land or agriculturally related products. The one or two major cities in the county have been trade or service centers with some small, frequently locally-owned factories. Average family income in these counties is considerably lower than the average for the United States and even lower than for the state of Missouri. On the one hand, one might argue that low income is generally related to a greater need (although not necessarily utilization) of health services. On the other hand, higher incomes generally create higher-than-average utilization of health and hospital services. These 13 studies generally support the point of view that because there is a lower number of hospital beds and physicians per 1,000 population (and no one to take care of the farm while one is hospitalized), there is a significantly lower utilization (in comparison to need) of health services. Many nonurban leaders suggest as an explanation that the country is a healthier place in which to live than the city.

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* Since writing this article, Doctor Weil has become Vice-President and Principal, E. D. Rosenfeld Associates, Inc., New York, N.Y.

A detailed analysis of the population and other demographic factors in nonurban Missouri suggests that a decreasing population with relatively low incomes in comparison to national averages is compounded by the finding that the greatest percentage of increase is among women and the aged, both of whom are high utilizers of health and hospital services. It is not uncommon for 15% to 22% of the population to be over 65 years of age, indicating a higher than average need for extended care and nursing home beds, domiciliary and ambulatory facilities and services including home health care programmatically organized for the elderly. The need for such health programs are further supported by the fact that some nonurban residents in Missouri are living in homes that are classified as dilapidated or in need of replacement within the next decade.

It is on the basis of these population and other demographic factors that health and hospital services must be planned in nonurban Missouri.

Hospital Service Areas

The hospital service area is frequently defined as that geographic area from which a hospital draws the majority of its patients and which it is primarily responsible for serving. The Missouri Hospital Association, in cooperation with the State Division of Health, has been collecting and analyzing hospital discharge data by residence, age, length of stay and other variables for the past decade. This is frequently called the Ice Pick Project since McBee cards were utilized in the early years rather than a computer. These data have been utilized to determine service areas and number of admissions and patients days per 1,000 population.

Sixty-five per cent to 95% of the county residents utilize the nearest facility. Up to 35% (when a facility is available) will leave the immediate county for hospital and physician services in those areas having an obsolete hospital or where the medical staff is made up almost solely of general practitioners. We have collected sufficient data to suggest that patient out-migration is related to the quantity and quality of health services in the immediate area.[2]

Hospitals

Nonurban Missouri presently has 3.0 to 4.5 beds per 1,000 population with an admission rate that is lower than the national average, but a length of stay that is somewhat higher than U. S. "norms." The occupancy of these institutions ranges between 65% to 84%, and the number of general practitioners and specialists is a more significant variable in number of occupied beds per 1,000 population than the number of beds that are available. The number of radiologic procedures and laboratory examinations are considerably below the national average on a per patient day or a per admission basis. There is an increasing number of emergency room visits, but the percentage of increase is below the national average.

In each of these 13 studies, all general hospitals, nursing homes, mental health facilities, county health departments, home-health care services and other health programs in a 30-mile radius of the study area were personally visited. More than 150 hospitals and nursing homes in the state of Missouri have been analyzed by the faculty and graduate students of the health services management program in the past three years. Based on these studies, the most significant finding is as follows: there is no demonstrable need for additional acute, general hospital beds in these areas within the next two decades. Recommendations with respect to acute beds frequently were (a) in cases in which the present facility was "inadequate," replace the existing acute beds and utilize these "outdated" beds for extended care or nursing home use or (b) in cases in which the present facility was relatively new and for the most part conformed to Hill-Burton standards, additional ancillary facilities and extended care or nursing home beds should be added.

Frequently, the recommendation for the hospital to build extended care or nursing home beds was not based on the quantity of existing beds and facilities in the region, but was related to the poor quality of long-term institutions now available. Every professional, practical and domiciliary nursing home was rated on the basis of physical plant and the quality of patient care as being either excellent, very good, good, fair or poor. The professional and practical homes having self-pay private patients are generally superior to those with Medicaid and welfare patients. The least adequate services are provided to those who were discharged from the state mental hospitals.

Physical medicine and rehabilitation services beyond physical therapy, for all practical purposes, are either nonobtainable or underutilized in these hospitals. There is a reluctance for physicians in these communities to utilize these modalities. The approach that was frequently suggested was for one of the hospitals in the region to develop a broad spectrum of physical medicine and rehabilitation modalities and then contract with other hospitals and nursing homes to provide these patient services. Although most hospital administrators agree that their facility is too small to support such services, the concept of sharing such scarce resources among a broader regional base needs additional encouragement.

The famous Ewalt Report recommended that patients with psychiatric illness should be cared for, if possible and for as long as possible, on an ambulatory basis or in a psychiatric unit of a general hospital. Two hospitals, Audrain Medical Center in Mexico and Methodist Hospital in St. Joseph, have short-term psychiatric facilities. In two locations, a traveling psychiatric team from the Mid-Missouri Mental Health Center at the University of Missouri Medical Center was meeting weekly in the basement of a downtown church. As a result of one study, a private home owned by the hospital (Sedalia) was converted to a mental health clinic.

Although there has been the philosophy of caring for mental health patients in the mainstream of the health care system, there still seems to be a split in many areas between the private practicing physicians and the state-owned and operated short-term facilities. Where a diagnostic center or state hospital was readily available, there was very limited transfer of patients or personnel. The evidence in nonurban Missouri suggests that mental health facilities should be built contiguous to the acute general hospital to obtain more effective and efficient coordination and integration of patient care. Based on the Audrain Medical Center experience, however, one would have to state that even with full integration, the resources might be underutilized for the first one to two years.

Community leaders throughout the world have long been identified with local voluntary health and welfare agencies. It is rather significant in rural health that voluntary health and welfare agencies are, for all practical purposes, nonexistent. The major and most interesting exception is the Children's Therapy Center, a voluntary agency which has its facilities and shares services with the Bothwell Memorial Hospital (Sedalia), a city-owned institution. There is a scattering of other voluntary agencies, but there are less than 20 full-time agency executives in the 13 communities studied.

Considering that there are few voluntary health agencies, one could anticipate that in nonurban Missouri, there would be well developed, county public health services with a broad spectrum of preventive, environmental and special programs. One might expect that county-sponsored home health agencies would be available rather than a voluntary visiting nurse association. Most county health departments studied consist of a county nurse. In the more populous counties, there may be a part-time health officer and a few more nurses. Only two of these 13 communities had a Medicare-approved home health care agency.

The recommendations in these 13 studies generally contained these statements: (a) there is no need to increase the number of acute beds; (b) there is a need to develop more ambulatory programs for the elderly and to build more extended care and nursing home beds, if possible, contiguous with or nearby the hospital; (c) there is a need to develop more ambulatory psychiatric services; (d) there is a need to organize a physical medicine and rehabilitation program in the context of sharing of services and manpower between several hospitals and nursing homes; and (e) there is a need to expand the county nursing function into a county health department with particular emphasis on home health care services. One would be less than truthful to say that these recommendations were always popular or what was expected at the local level. Many of these studies were undertaken with the hope of demonstrating that there was a need for additional "brick and mortar," i.e., acute beds, while we more often recommended that there be a broader spectrum of programs and services available at the local level without a significant physical expansion. When our approach was centered around comprehensive health planning (for most nonenvironmental services), those who sponsored the studies had other or less ambitious objectives.

The question that was frequently raised at many governing board and medical staff meetings around the state was, whether or not there was a hospital that did provide such a broad spectrum of health services under "one roof." Those of us in Missouri are fortunate in having a model, the Audrain Medical Center in Mexico (population 12,000), which contains a 223-bed general hospital, a 21-bed psychiatric unit, an 82-bed long-term care unit and a city-county health department, which has a home health care service. With the Audrain County approach, the administrator of the hospital also is the chief executive officer of the psychiatric facility, the long-term care unit and the city-county health unit, and the hospital has helped sponsor a licensed practical nursing program for the past 14 years.

The most valid arguments against developing such centers are related to obtaining the financing and the manpower. There is an increasing number of voluntary hospitals considering the possibility of becoming county facilities with an elected board to obtain a tax base for capitalizing a new physical plant and operating programs that are difficult to support on the basis of patient income. Other county hospitals have utilized or would like to utilize revenue rather than general obligation bonds since this approach obviates obtaining a 66⅔% approval from the voters. Medicare regulations and a conservative Medicaid program in Missouri have resulted in emphasis on acute, rather than rehabilitation, long-term care or home health care services. The hardest question we have had to answer is where will the monies come from *now* in nonurban Missouri to support these expanded services.

Manpower

The number of physicians and dentists in the state of Missouri per 1,000 residents is approximately the national norm. One would actually expect more physicians, considering the fact that Missouri has two private schools of medicine, two private schools of osteopathy and two (one started in 1971) state schools of medicine. Historically, Missouri has trained more physicians than have remained to practice in the state.

While there is one physician per 350 residents in such cities as Kansas City, St. Louis and Springfield, it is not strange to have one physician per 2,000 residents in many nonurban sections of the state. The M.D. general practitioners are frequently over the age of 55, and the osteopathic physicians are providing an increasing percentage of the medical services in these communities. There are an increasing number of specialists locating in the larger cities, with an outstanding group at Sikeston, a well-established clinic in St. Joseph and another emerging group at Sedalia. As more specialists locate in these large nonurban cities, the issue of the delineation of surgical privileges is occurring in these communities in a manner similar to that in the metropolitan areas after World War II.

The number of dentists per 1,000 population is below the national and state averages in nonurban Missouri. Preventive dental services are not too well accepted by all in many of these communities, so the need for additional dental practitioners is not as critical as one might anticipate from the dentist-population ratio.

In spite of the fact that many high school graduates from nonurban Missouri enter allied health training programs, there is a tremendous shortage of paramedical personnel outside the major cities. While two thirds of the baccalaureate students in nursing at the University of Missouri graduated from high schools in communities that had a population of less than 10,000, less than 5% go back to their hometown or similar size area. Distribution of allied health personnel is particularly acute among physical therapists, occupational theraists, medical technologists, ADA dietitians and registered medical record librarians.

Points of View of Various Consumers

When developing a long-range plan for health facilities in a specific area, it is important to determine the aspirations, interests and desires of the various consumers. It also would be inadvisable to suggest a comprehensive health plan without obtaining the opinions of the physicians in the area. These 13 community studies contain documented points of view held by physicians, business leaders and either members of the chamber of commerce or those selected randomly from the telephone directory or discharged patients. The response rate to these mail questionnaires ranges from 25 to 40%. Interestingly enough, in one study when the same questionnaire was sent to every fifth person in the telephone directory and later to the members of the local chamber of commerce, the chamber group expressed higher priority for a county hospital to replace two existing facilities than those selected from the telephone directory.

The physician's response is generally related to more acute facilities, while the consumer places higher priority on expanded emergency room services. Aside from emergency room coverage, there is a high correlation on various priorities between the practicing physician and the consumer. Respondents over 55 years of age, as one might expect, place greater emphasis on expanding long-term and home health services, while in most nonurban communities there is little interest in either psychiatric or physical medicine and rehabilitation services.

The intensive, in-depth interviews with leading industrialists in the communities suggest that most are satisfied with the "status quo" in present health services. One vividly remembers going with the vice-president of a governing board to meet the general manager of a large, new and prestigious plant owned by a major international company and being told in a most polite manner that "our company almost did not locate here because the local hospital was so inadequate and crowded." The author attended the following board meeting and observed that the attitude of the governing board members toward programmatic and physical expansion had become more positive.

One of the questions always asked is, "How would you describe the services rendered at the ——— Hospital?" Few rank their local institution in nonurban Missouri as outstanding or excellent, with the majority of responses in the very good or good range. Generally 10% to 15% of the respondents rate the hospital as fair or poor, with low income white collar and blue collar workers frequently being least satisfied. In one study, the union members in the community were considerably more critical in their evaluation of the two local hospitals than the members of the chamber of commerce.

Aside from the public relations value of asking consumers their opinions of health services in the region, the responses obtained had a high positive correlation with the observations and data obtained and analyzed from other sources. On the basis of these questionnaires in 13 separate studies, one could only conclude that the consumer in nonurban Missouri is more knowledgeable about the priority for health services than the provider of services has been willing to admit.

Educational Programs

In the past 30 years, the function of hospitals has changed from that of providing common-demand bed space with a minimum of treatment and diagnostic facilities to that of providing comprehensive health and educational resources, including those for teaching purposes. The major approach was to utilize existing educational resources in the region as the academic base and for the hospital to be the clinical facility for the training program.

The development of licensed practical nursing programs is considerably easier, as one might expect, than an associate degree registered nurse affiliation between a junior college and a hospital. The major limitations operative in these hospitals for educational purposes are as follows: (a) one half of the hospitals visited are not accredited by the Joint Commission on Accreditation of Hospitals and, therefore, are not eligible to be the base of a clinical facility in the teaching program, and (b) the broader programmed hospitals, in most cases, are unfortunately not located in cities that also have higher education facilities. If those leaving nonurban areas to attend health-related education programs at the universities infrequently return home, then the major source of health manpower must be obtained from programs that are more closely identified with local junior and state colleges. This concept has been difficult to sell to educators and hospital administrators at the local level in spite of the fact that this is probably the most effective answer to meet manpower needs in nonurban Missouri.

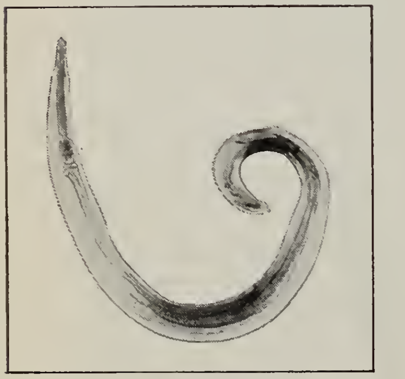
Physical Plant or Facilities

One would have great difficulty in generalizing about the physical plants of all the hospitals and nursing homes visited since they range from those that might be considered a "model" to 50 year old, nonfire-resistent structures.

When there has been a relatively-sound, recently-constructed facility, we usually have recommended that the basic core services (laboratory, x-ray, operating rooms) be expanded without an increase in the number of acute beds. In several cases, we have recommended that the existing facility be utilized as an extended care-nursing home, with a new general hospital to be built adjacent to it.

One has the general feeling that with more innovative leadership at the governing board, medical staff and administrative level in many nonurban hospitals in Missouri, the present physical plants are adequate to handle a broader spectrum of health services. For example, there is significant resistance to providing the county nurse with an office in the hospital. Nursing home patients would profit immensely from physical therapy on an ambulatory basis in many hospitals. These broader approaches beyond the horizontal acutely ill patient are too frequently resisted.

Pinworm therapy is often a family affair



Contraindications: History of hypersensitivity to thiabendazole. **Warnings:** If hypersensitivity reactions occur, drug should be discontinued immediately and not resumed. Rarely, erythema multiforme has been associated with thiabendazole therapy; in severe cases (Stevens-Johnson syndrome), fatalities have occurred. Because CNS side effects may occur quite frequently, activities requiring mental alertness should be avoided. Safe use in pregnancy or lactation has not been established.
Precautions: Ideally, supportive therapy is indicated for anemic, dehydrated, or malnourished patients prior to initiation of anthelmintic therapy. In presence of hepatic or renal dysfunction, patients should be carefully monitored.
Adverse Reactions: Most frequently encountered are anorexia, nausea, vomiting, and dizziness. Less frequently, diarrhea, epigastric distress, pruritus, weariness, drowsiness, giddiness, and headache have occurred. Rarely, tinnitus, hyperirritability, numbness, abnormal sensation in eyes, blurring of vision, xanthopsia; hypotension, collapse; enuresis; transient rise in cephalin flocculation and SGOT; perianal rash, cholestasis and parenchymal liver damage; hyperglycemia; transient leukopeni malodor of the urine, crystalluria, hematuria; appearance of liv Ascaris in the mouth and nose. Hypersensitivity reactions

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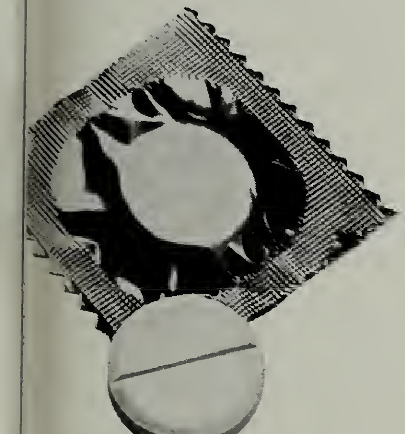

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addendum

INDICATION | DOSAGE SCHEDULE

MINTEZOL® (Thiabendazole, MSD) has demonstrated effectiveness against a broad spectrum of nematode infestations, whether encountered singly or in combination. Dosages are weight related; therefore, a weight-dose chart is included in the Direction Circular for your convenience when writing a prescription. MINTEZOL should be given after meals if possible.

INDICATIONS	DOSAGE (1st Day)	ADDITIONAL REGIMEN	COMMENTS
Pinworm disease	Two doses of 1 tablet/50 lb	Repeat 7 days later	This regimen is designed to reduce the risk of reinfection. However, if not practical, repeat the regimen the next day.
Threadworm,* large round-worm,* hookworm,* and whipworm* disease	Two doses of 1 tablet/50 lb	Repeat the next day	Alternatively, a single dose of 2 tablets/50 lb may be given. However, a higher incidence of side effects should be expected.
Creeping eruption	Two doses of 1 tablet/50 lb	Repeat the next day	If active lesions are still present 2 days after completing this regimen, a second course is recommended.
Symptoms of trichinosis* during the invasive phase of the disease	Two doses of 1 tablet/50 lb	Repeat for 2 to 4 successive days	The optimal dosage for the treatment of trichinosis has not been established.

The recommended maximal daily dosage is 3 g (6 tablets).

*Clinical experience with thiabendazole for treatment of each of these conditions in children weighing less than 30 lb has been limited.

Summary of MSMA Council Meeting

This is a brief summary of actions taken by the MSMA Council at its meeting in Jefferson City on June 3-4, 1972. Complete minutes of the meeting follow this summary.

1. **Family Planning—Ad Hoc Committee of the Council:** Dr. Gerald L. Miller was named Chairman and will appoint the members to the Ad Hoc Committee. MSMA Staff will collect information in this area and prepare a factual report.

2. **Peer Review Concerning Hospitals:** Dr. Hector W. Benoit, Jr., heard the thinking of the Council in this regard and will relay this information to the HCF Board.

3. **Fees Under Medicaid:** Dr. Stanley S. Peterson's Committee will study this subject. Staff will have a current report at the next session.

4. **Change in Constitution and Bylaws Regarding Referendum:** If MSMA Councilors are not in agreement with this change, they should inform their respective Delegates since the change will have to be made by the House of Delegates. This item will be placed on the agenda for the January Council meeting.

5. **Portable X-ray Units:** Referred to the Commission on Public Affairs.

6. **Report of the President Regarding Executive Committee Meeting:** Staff is to review policy matters. The Council Committee is to aid in this review. Members are Drs. John I. Matthews, E. A. Stricker and Max S. Franklin.

7. **Matters Referred to the Council by the House of Delegates:**

Resolution #24—Smallpox Vaccination—This is to be referred to the Committee which is now being formed in epidemiology in the Missouri Division of Health for consideration and recommendation.

Resolution #33—Pediatric Coordination Council in Missouri—Referred to the Commission on Public Affairs.

Resolution #37—Emergency Services—While the Council approves this plan for the Greater Kansas City area and has sent a copy of the resolution to Mr. Allen D. Smith, it is not necessarily saying that this is the plan which should be used statewide.

Resolution #40—Failure Rate of State Board Examinations—Referred to the Commission on Continuing Education and Health Manpower.

8. The Council voted to reserve a date at the Crown Center for the MSMA Annual Meeting in Kansas City in 1974 and to investigate the Alameda Plaza as a possible meeting place.

9. The Council approved an $825 budget for the Ad Hoc Committee on Continuing Medical Education for the purpose of holding a state-level conference with national authorities to address the CME Committee, CME Councilor District Directors, MSMA Council and Officers, etc. This meeting is to be held on June 24-25, 1972 at Ramada Inn in Columbia.

10. **Appointment of Council Committee on Membership Communications**—Drs. Max S. Franklin, Eugene T. Hansbrough, Howard J. McAlhany and Claude W. Cooper were appointed to this committee.

11. **Self-Testing Program for Small Laboratories** was approved.

12. **Mechanism for Rapid Press Releases:** This consists of a Physician Committee of One, President Walter T. Gunn. Input will be from the entire state. Prompt replies will be written, cleared through the President and distributed properly through the press wires or, perhaps, in an individual way. If the Councilors make statements to the press on behalf of the MSMA, the statements are to be cleared through the MSMA President and the state office is to be kept informed.

13. **Cancer Hospital:** Drs. James N. Hueser and John S. Spratt, Jr. The Council is to continue dialogue with Doctor Spratt regarding the possibility of keeping Cancer Society money in Missouri. Also, the Council is to investigate the possibility of getting back some of the funds that the Cancer Hospital puts into Missouri's general funds. Mr. Raymond McIntyre indicated that since the Council approved the project of the fund drive, he would assume that it would be satisfactory for representatives of the Cancer Research Center to appear at local county medical society meetings if they request to do so and it would be acceptable for the Staff to provide a list of presidents and secretaries of the county

societies. Doctor James C. Cope stated that the Cancer Research Center is a nonprofit corporation and it is on this basis that the funds would be solicited for the Cancer Research Center.

14. Dr. William D. Bradshaw asked for a report on the status of purchasing property for the MSMA Headquarters. Mr. McIntyre indicated that the papers have been signed and the owner has accepted the $5,000 earnest money. The owner has a maximum of six months in which to vacate the property. This agreement was signed in the latter part of April. The realtor is now in the process of finding suitable housing for the owner. The MSMA has selected an architect who is drawing plans for remodeling the building to suit MSMA needs.

15. Dr. Louis P. Hetlage made the following motion concerning Council position on the AMA: "Move that the position of our AMA delegation, as instructed by this Council, shall be one of change in the structure of organized medicine from the county society level to the higher echelons of the AMA, so that the structure and image of organized medicine shall be relevant to the social and economic structure of society today. That these changes be made only after reasonable and advised study of present structure and the alterations and problems involved in changing established modes of operation."

Council Chairman James C. Cope stated that he felt that this motion is certainly a statement of policy and is well in order. Doctor Hetlage explained that this does not direct our delegation down any particular path, but indicates that we favor some intelligent change in the organization after study. The above motion was duly seconded and carried.

16. Dr. E. A. Stricker invited the Council to hold its next Council Meeting at the Carney Manor in Rolla on Sept. 16-17, 1972. Golf will be played on Friday, Sept. 15, with a luncheon at approximately 11:30 A.M. and golf in the afternoon. A buffet dinner will be at the Stricker home on Friday evening. Council Meeting is scheduled for all day Saturday. There will be a dinner and party on Saturday evening at Carney Manor. There will be a Council Meeting as usual on Sunday morning. There will be separate entertainment for the wives during the day on Friday and Saturday. Doctor Stricker indicated that more information will be sent at a later date.

The meeting was adjourned at approximately 12:15 P.M.

The Council Reports

Meeting of June 3-4, 1972

James C. Cope, M.D., Columbia, Chairman, called the meeting to order. Those present were Drs. Cope; Walter T. Gunn, St. Louis; E. A. Stricker, St. James; John I. Matthews, Jefferson City; Gerald L. Miller, Kansas City; John N. Martin, St. Louis; Lysle M. Bach, Hannibal; Max S. Franklin, St. Louis; Louis P. Hetlage, Troy; William D. Bradshaw, Clinton; R. Allen Chandler, Kansas City; Howard J. McAlhany, Springfield; Claude W. Cooper, Thayer; Eugene T. Hansbrough, Poplar Bluff; Joseph V. Finnegan, St. Louis; Stanley S. Peterson, Springfield; Arthur W. Neilson, St. Louis; J. Loren Washburn, Versailles; Hector W. Benoit, Jr., Kansas City; William D. Mayer and William C. Allen, Columbia; R. K. Noback, Kansas City; George Thoma, St. Louis; Blaine Z. Hibbard, Kansas City; Paul R. Young, Columbia; Herbert R. Domke, Jefferson City; John S. Spratt and James N. Hueser, Columbia; Mrs. Keith D. Jones, Warrensburg and Mrs. Gerald L. Miller, Kansas City, Woman's Auxiliary; Messrs. John W. Noble, Kennett; Allen D. Smith, Kansas City; Hollister S. Smith, St. Louis; Ray McIntyre, Tom P. Fox, Royal O. Cooper and C. C. Swarens, Jefferson City, Staff.

Chairman Cope called the meeting to order at 9:05 AM and requested approval of the minutes of meetings on April 5 and April 9, 1972. On motion of Dr. Gunn, duly seconded, the minutes were approved as distributed.

Dr. Cope read a letter from a MSMA member requesting use of the addressograph plates for a statewide mailing. He stated that he had answered this letter, indicating MSMA policy regarding use of these plates but stating that if the writer so desired, it would be brought up at this Council meeting. No further request was received. Dr. Hansbrough stated that he felt that when such a request is received from an MSMA member, it should be considered.

REPORT OF THE EXECUTIVE SECRETARY

Mr. McIntyre introduced Mr. C. C. Swarens, new Public Relations Director for the Missouri State Medical Association, who joined the MSMA Staff on June 1.

Mr. McIntyre reported that a letter expressing deep regret at the death of Mr. Edgar Mothershead, former Executive Secretary of St. Louis County Medical Society, was sent to Mrs. Mothershead and had been acknowledged. Thanks also were received for the flowers sent by the Council and Officers to the funeral of Dr. Wendell Scott of St. Louis.

Mr. McIntyre reported that M.D. Day at the University of Missouri will be held on November 17-18. The Missouri Tigers will play Iowa State.

He said that a resolution received from the California Medical Association indicated that the California Medical Association has informed the Regional Medical Program of California that it will not support the funding for financing of HMOs from RMP funds.

He stated that total registration at the 1972 MSMA Annual Session was 955 with 605 physicians. Dr. Richard E. Palmer, Trustee of the AMA, who attended the Annual Session, called the office after the meeting and indicated that he felt the scientific sessions were very good. The sessions were well attended.

Mr. McIntyre reported an evaluation of the conference on "Large and Small Hospital Organization for the 70s." The overall attendance was 300. During the meeting, a questionnaire regarding the content of the conference was circulated. These reports were favorable. On the basis of this and the financial outcome, it is recommended and planned for a similar conference to be held next year on March 1-2, 1973. The Joint Commission on Accreditation is trying to set up workshops for the same people (hospital administrators, chiefs of staffs, board members, etc.). There is the question as to how many meetings can be held in a short period of time for the same people.

Mr. McIntyre stated that he attended a recent meeting of the Governor's Advisory Council on Comprehensive Health Planning. A number of committee meetings had been held the previous night and reports were presented to the Council. He stated that he felt it would be well for a member of our staff to attend all of these meetings. On motion of Dr. McAlhany, duly seconded, it was agreed that a staff member should attend all Advisory Council meetings.

PRESIDENT'S REMARKS

Dr. Gunn reported that the check which KMOX had received as part of its Journalism Award from MSMA at the 1972 Annual Session was returned to the Association to be used in any manner the Association desired. KMOX was informed that the money would be given to the Missouri State Medical Foundation in the station's name. KCMO donated its Journalism Award check to the University of Missouri-Kansas City. Dr. Gunn announced that the MSMA Honors Graduate Awards and $100 Savings Bonds were awarded this year to the following three medical school graduates: Richard Allen Landy, St. Louis University; Mrs. Charlotte DeCroes Jacobs, Washington University; and Mrs. Jean Edwards Holt, Missouri University-Columbia.

The President reported that the MSMA membership check has been sent to the Association of State Medical Association Presidents. He will attend their meeting on Saturday preceding the AMA Annual Session in San Francisco.

Dr. Gunn reported that the Missouri State Medical Foundation has received a donation of $2,402.74 from the Boone County Medical Society Polio Fund.

President Gunn said that he had sent a telegram of congratulations to Mrs. Prentiss Lee, President of the AMA Woman's Auxiliary, on the occasion of the Auxiliary's 50th Anniversary.

Dr. Gunn stated that the Health Commissioner of the City of St. Louis had made application, with the endorsement of St. Louis Medical Society, for assistance through the National Health Services Corps to provide additional physicians to serve patients utilizing Homer G. Phillips Hospital. If there were no objection from the Council, Dr. Gunn would sign the endorsement.

The Wayne Miner Health Center in Kansas City is involved in this same type of program with the approval of the Jackson County Medical Society. These physicians serve in this way in lieu of their military service. The community must demonstrate a real need and the local and state medical societies have to certify the need. These physicians receive a straight salary.

REPORT OF THE EXECUTIVE COMMITTEE

Dr. Gunn, Chairman of the MSMA Executive Committee, reported that the Committee met on May 7 and interviewed applicants for the MSMA staff position opening created by the resignation of Mr. Bob Carroll. Mr. Swarens was employed.

The Executive Committee appointed Drs. Matthews, Cope and Gulick to a Building Committee for the new home of the MSMA.

The Executive Committee also requested staff to research and make recommendations regarding staff personnel policies.

On motion of Dr. McAlhany, duly seconded, it was agreed that a Committee of the Council should work with the staff in this regard. The following Councilors were appointed to this Committee: Drs. Matthews, Stricker and Franklin.

REPORT OF LEGAL COUNSEL

The Chairman called on Mr. Noble, MSMA Legal Counsel, for a brief report regarding the two law suits in which the Association is involved. He stated that a disappointing decision had been handed down in the Curteman Case. A motion for rehearing has been filed. He stated that the decision deprives the physicians of Missouri of certain rights. Mr. Noble stated that he is hopeful that the Court will rule favorably on the motion for rehearing.

Mr. Noble reported that in connection with the Health Care Foundation suit, motions filed in the case are still pending and answers supporting these motions also have been filed with the Court.

Discussion followed regarding Legal Counsel's presentation. In regard to the Curteman Case, Mr. Noble indicated that the Missouri Supreme Court held that MSMA was not a real party in interest. It was pointed out that the decision rendered was made by a section of the Court and the MSMA has requested that it be reconsidered or that the entire Court consider it.

Dr. Hetlage asked whether or not this decision would place physicians' assistants in jeopardy. Mr. Noble indicated that he thought this might set a precedent.

REPORT OF DISTRICT COUNCILORS

District #1—Dr. Martin reported that the Northwest Missouri Medical Society recently held a meeting with Blue Shield representatives present. They discussed their new policy on payment of outpatient charges and how they will pay laboratory charges on outpatients.

Dr. Martin reported difficulties with some of the planned parenthood clinics. He stated that it seems that many girls are going into Kansas City and are getting birth control pills without any examination. He stated that the St. Joseph and Northwest Missouri clinics are not operated that way.

Dr. Martin stated that they have become involved in the MECO Program and feel that it will be a good thing for their area.

He indicated that they are having a problem with the Coroner's job, and could not find an M.D. who wanted to run for the position. However, they now have an M.D. on the ballot.

Dr. Martin expressed concern about the fact that the President of the Illinois Medical Association was in attendance at the MSMA Annual Session and seemingly was unescorted and left on his own. Dr. Cope indicated that if this were the case, he felt it was serious and every effort should be made in the future to be certain that these gentlemen are taken care of.

Mr. Martin reported that North Kansas City Hospital has received applications for staff privileges from two D.O.s. This matter is now pending before the Board.

District #2—Dr. Bach stated that he had no pertinent report at this time.

District #3—Dr. Franklin reported that the Publicity Committee for St. Louis Medical Society has completed a three-year program to indoctrinate the news media. During this period, they have had meetings and round table discussions with presidents, editors and program administrators, editorial page editors, radio announcers, etc. of various radio and TV stations and newspapers. Dr. Franklin stated that he feels their relationship with the media has improved tremendously.

Dr. Franklin reported that he had received many phone calls regarding the mailing of the Division of Health on the new controlled substances law and the requirement for registration. An article has since been published in Missouri Medicine explaining the background and purpose of this law. This explanation was developed in collaboration with the Division of Health. Dr. Domke stated that the bill in the Legislature received extensive play from the press.

Dr. Franklin indicated that Dr. Benoit went to St. Louis and discussed the Health Care Foundation. The meeting was sparsely attended due to the number of other meetings and activities that evening.

District #4—Dr. Hetlage indicated that his District Report does not necessarily represent his opinions, but those of his Councilor District. Dr. Hetlage reported that the following action was taken by a committee composed of the majority of delgates from the Fourth Councilor District, all counties being represented, and the presidents of the various medical societies. There was a 75% attendance at this meeting. The Committee requested the Council to ask the appropriate commission to define areas of action for those paramedical personnel performing certain emergency functions normally carried out by physicians (the Chairman referred this to the Commission on Continuing Education and Health Manpower).

The Committee urges passage and implementation of a "Good Samaritan Act" which would not only protect physicians, but paramedical personnel rendering emergency treatment if a physician is unavailable.

Dr. Hetlage stated that a lengthy discussion was held on compulsory postgraduate education. In summary, the Committee favors the compulsory education as an ultimate goal of the Missouri State Medical Association. It was felt that the most practical solution for immediate implementation would be a yearly minimum of hours of postgraduate study as a prerequisite for continuing licensure.

The Committee did not favor examination as a means to this end. However, it did favor self-evaluation examinations as a means for continuing education stimulus. It was felt that there should be some reexamination within a specialty for continued certification, but that this should be left to the individual discretion of the specialty boards, either on a local or national level.

Dr. Hetlage reported that a lengthy discussion was held regarding the relevance of the MSMA and the apparent lack of interest exhibited by the average grass roots member in State Society business. The Committee felt that increased emphasis on the part of the State Medical Society on relevant issues with increased opportunities for participation of members in discussion of these issues is necessary. It also was felt that relevant issues should be discussed and action should be taken on a Councilor District level as well as on a local society level, rather than confine the majority of action and discussion to Council meetings. It also was was felt that even more improvement in dissemination of information on "gut issues" is badly needed.

Dr. Hetlage reported that the second phase of the discussion on the MSMA confined itself to the previously proposed need for a change in the Council structure and in presidential rotation and election. Fourth Councilor District Delegates and all officers of the component societies unanimously favor the changes as outlined in the resolution submitted to the House of Delegates in April.

They further would encourage changes which would permit a more frequent rotation of councilors and would favor changes which would permit the selection of the President from the floor of the House of Delegates, rather than by automatic election of the Council Chairman to that position. A discussion was held relative to proportionate representation, and a resolution to this effect will be presented to the Council at its September meeting.

The Committee requests a detailed report of the progress of Dr. Peterson's Committee on Negotiation of Professional Fees and his plans for action within this committee. The Committee has requested his presence or the presence of a member of his committee at a forthcoming Councilor District Conference.

The Committee brought up the matter of the information on the bylaws of the Health Care Foundation and the drug resolution which had not, at that time, been received. This material, however, was received in the mail on June 1.

A motion was made and passed approving on a district level the plan presented by Blue Shield for an open panel comprehensive Blue Shield Program. This program has been developed with wide district consultation through a large and active advisory committee and has been explained in detail to the members of the component societies.

Prior to adjournment, it was decided that the format of the meeting and the content of discussion was better than at any previous meeting of this type and that these meetings would be continued on a regular basis on the Wednesday prior to the Council meetings. It was suggested that $1.00 per member assessment be paid by the component societies to pay the expenses of this conference. This is to be considered by the component county societies and action is to be taken by them voluntarily, if they so desire.

Dr. Hetlage brought up the matter of the resolution which was passed in the House regarding the failure rate of the state boards, particularly for foreign physicians. He indicated that it was his understanding that one third of the foreign physicians taking the Missouri State Boards do not pass them.

Dr. Mayer indicated that the FLEX examination which was put together by a national board and is in use in some states could enhance the present problem when Missouri goes to this examination. The failure rate of the FLEX examination across the country is high.

Dr. Hetlage reported briefly on the planned parenthood clinics in St. Charles. With a grant from HEW, they came to several gynecologists and said they were going to start a planned parenthood clinic. They were told that if the local physicians did not help them, they would bring doctors from St. Louis County to run it. The biggest objection to these clinics is their use of nonprofessional social workers who go out and solicit business. Dr. Hetlage indicated that they have taken testimony from several people regarding the clinic going into private hospitals and soliciting patients. It is costing this particular clinic $40 per patient to treat them. There is objection to the means by which the clinic was established by coercion. A representative from HEW has been asked for his plans for this particular clinic. Seemingly, they plan to go into all GYN and OB care and, if necessary, to enlarge into total medical care. Dr. Domke indicated that there has been substantial federal money appropriated for planned parenthood.

Dr. Hetlage reported that Lincoln County has some objections to the manner in which the County Health Nurse is operating. She is hired by the County Court. In some instances, she is prescribing INH following a positive Tine Test. He said that oral polio clinics and measles clinics are being held within three weeks of each other.

Several of the Councilors indicated that the topic of planned parenthood clinics will be brought up in their reports and it was agreed that this matter be tabled until all Councilor District reports were made.

District #5—Dr. Cope indicated they had two cases reviewed by the Health Care Foundation, both Medicare cases. The Foundation decided in favor of the physician in both instances. The effect on the carrier was, in one instance, no response. In the other case, a sizable increase in the amount was allowed on the basis of a mistake by the carrier in its computer programming. Dr. Cope indicated that if the HCF is going to be a one-way street, it isn't going to lead very far. He indicated this was given to the Council only for their information.

Dr. Cope reported on what he considers a very serious situation taking place on his district and probably other parts of the state and country. The Boonville Medical Group has a policy of requiring payment before any Medicare forms are filled out. This policy is spelled out and posted on the office wall. The patients are told that they do not accept assignment. One particular patient accepted treatment under these circumstances. He received a bill from the clinic stating so much for medical care, so much for laboratory services, etc. He took this statement to the SSA office in Sedalia and they indicated to him that the statement was not adequately itemized for their use. The Boonville Medical Group was informed that they were in violation and any patient must be given the equivalent of an unassigned Medicare form. Dr. Cope submitted a report regarding this to the Medicare carrier with a copy going to the AMA. In essence, the AMA agreed with the position that the Group was in violation of the AMA recommendations if they did not give an adequately itemized statement to the patient, so that he can collect from Medicare. It was Dr. Cope's opinion that this is pressure that SSA is putting on physicians to take assignment.

Mr. Smith reported that this had come up in Jackson County. He indicated that he did research on AMA activities in this regard. He stated that the original Medicare regulations required that the patient pay his bill and then be given a receipted statement to use to receive Medicare payment.

Mr. Smith indicated that at that time, the AMA felt this was not right, since many patients could not possibly pay their bills prior to receipt of the payment from Medicare and the AMA asked for the change. Mr. Smith stated that he felt this is well substantiated by the AMA.

The Chairman referred the Boonville Medical Group matter to the Standing Commission on Medical Economics, Third Party Medicine and Governmental Relations which is chaired by Dr. Peterson.

District #6—Dr. Bradshaw reported that the Golden Valley Memorial Hospital has opened. It is a 100-bed hospital and serves about 107 patients all the time.

Dr. Bradshaw discussed the medical manpower problem in the state and indicated that we have tried to take some leadership in this problem. There are now young people practicing in the state who are on federal payrolls. He indicated that many rural Missouri towns that are badly in need of physicians do not have the background information and do not know how to go about getting such physician manpower. He stated that he is sure many of these physicians are meeting real needs, but many of them have not. Dr. Bradshaw feels that there should be someone to determine where the needs are and that, perhaps, the MSMA Council or the Division of Health or both might serve as a clearing agency to determine the manpower needs.

Dr. Bradshaw expressed his concern regarding helping individuals who have been arrested on drug addiction charges or for sale of drugs. Many times, they spend many months in jail. It is the contention of some lawyers that if the case is drawn out long enough, the charges will be reduced or possibly dropped. When the addict does get out of jail, he finds that jobs are difficult to get and he has no visible means for paying his attorney's fees. In many instances, he turns back to the sale of drugs to aid his financial situation. Perhaps some change should be made in the legal procedure so that prompt action can be taken. Dr. Bradshaw indicated that he feels that our system is perpetuating such problems and stated that he feels this is part of the medical community's concern.

Dr. Bradshaw brought up the matter of M.D.s and D.O.s practicing together. He stated that a group of D.O.s in his locality have approached several M.D.s over the state about coming and practicing with them. He said that there is one M.D. practicing on the staff of this group now. He indicated that he would like to hear reflective thinking from the Council members regarding such an arrangement.

Dr. Bradshaw reported that a joint meeting of the Henry, Johnson, Pettis, Lafayette-Ray and Saline County Medical Societies was held on Wednesday, May 31, in Sedalia and was well attended. Three physicians from the University of Missouri presented the program regarding some of the recent innovations at the University and held a question and answer period. He said that it was a very enjoyable meeting.

Dr. Bradshaw indicated that they too have the family planning clinic in the community and he is one of the physicians who is trying to help them.

Dr. Bradshaw stated that he would like to see the Health Care Foundation be expanded into doing hospital review. He stated that he feels the need for his

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particular hospital to have a total review by some outside and disinterested party. He said that possibly this could be done for small hospitals of less than 150 beds or, perhaps, on a staff-size basis and he would like to see the Foundation do such a review on a request basis.

Dr. Bradshaw reported that a physician who is a conscientious objector will be spending his service time working with him beginning July 1. He said the physician seems to be a very bright young man and he is happy to have him.

District #7—Dr. Chandler reported that the Kansas City Bar Association, Jackson County Osteopathic Association and the Jackson County Medical Society have completed work on a detailed interprofessional code.

Jackson County Medical Society sponsored a dinner meeting at which Dr. Russell Roth, Speaker of the AMA House of Delegates, was the spokesman. Four AMA Delegates were present; two were from Kansas. There was a question and answer period.

Dr. Chandler called attention to an article from the *Kansas City Times* headlined, "Expense Account." This article spoke of organized tours as being only a tax dodge unless more actual medical papers are presented.

He reported that Dr. George Lytton has been elected President of the Urban League in Kansas City.

District #8—Dr. McAlhany reported that Dr. E. A. Hoffman, President-Elect of the AMA, will visit in Springfield on November 16. During the day, he will be at Drury College and he will be the guest of Greene County Medical Society in the evening. This event probably will be held at the Howard Johnson Convention Center with a social hour at 6 PM or 6:30 PM. He urged the Council members and officers to make every effort to attend and indicated that more detailed information will be supplied at a later date. He did state that this meeting conflicts with the Caribbean Cruise which is being sponsored by MSMA.

District #9—Dr. Cooper indicated that the main problem in his area is still manpower shortages.

District #10—Dr. Hansbrough reported that their local extended care facility, which is the Lucy Lee Annex, had come under a great deal of fire by Blue Cross of St. Louis. He stated that he had sent a patient to this ECF for rehabilitation following hospitalization with a fractured hip. She remained there for only nine days and was told that was as long as she could stay. Dr. Hansbrough communicated with Rep. Burlison regarding this situation and he has now received a letter which opens the door and the ECF will accept almost anybody.

Dr. Hansbrough indicated that the Department of Health provided him with the National Health Services applications. There are two physicians being assigned to New Madrid under this program. They had three physicians, but all have left. Two have gone into practice in Cape Girardeau. He said their reason for leaving was due to the inadequate fees being paid under Medicaid. He stated that he feels this bill was written to see that indigent people do receive adequate medical care. He said that he felt the Council should determine if anything can be done about these fees. He stated that the community has to apply for these physicians. They come through the Regional Offices of HEW. Ordinarily, these physicians are assigned to communities of less than 4,000 population, although exceptions will be made in extreme cases of isolation, etc. The state and local medical societies have to certify the need as well as the local gov-

(Continued on page 695)

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Notes of interest from Here . . . . and There

Eugene M. Bricker, M.D., Surgeon, Continues Private Practice

In an item on this page of the June, 1972 issue of Missouri Medicine, it was inadvertently and incorrectly stated that Dr. Eugene M. Bricker of St. Louis "has retired from his medical practice in St. Louis." Doctor Bricker has not retired from medical practice. In a letter to Missouri Medicine, he has written, "Let me state clearly that I am not retired nor do I intend to retire in the near future."

It is true that Doctor Bricker has accepted an appointment on the staff of the Pike County Hospital in Louisiana, Mo., where he will consult in surgery when requested. It also is true that he spends time on his farm near Clarksville. However, he is definitely "in good health and in business" in St. Louis.

Missouri Medicine apologizes for this unfortunate misinterpretation of a newspaper article and expresses appreciation to Doctor Bricker for his understanding and his good-natured letter, which is published on page 683.

Dr. Robert G. Evens, St. Louis, is one of three young St. Louisians who were selected as recipients of the St. Louis Junior Chamber of Commerce's 1972 Distinguished Service Award, the highest award presented annually by the organization. Doctor Evens is director of the Mallinckrodt Institute of Radiology in the Barnes Hospital Medical Center, professor and head of Washington University's Department of Radiology and radiologist-in-chief at Barnes Hospital. He is the medical school's youngest department head.

Dr. Harry Stoeckle, Columbia, was elected president of the Missouri Heart Association at the 23rd annual meeting held in Springfield on June 10. Other newly-elected officers are **Dr. H. Mitchell Perry**, St. Louis, president-elect; **Dr. Joseph R. Sasano, Jr.**, M.D., Kansas City, vice-president; **Dr. Clifford R. Talbert, Jr.**, Cape Girardeau, secretary; and **Mr. David L. Babel**, Columbia, treasurer. More than 120 Heart Fund volunteers, Association directors and members and guests representing other voluntary health agencies attended the meeting.

Dr. Richard H. King, Clinton, delivered the commencement address (98th) to 132 graduating seniors at the Clinton High School this year. Doctor King served on the Clinton Board of Education from 1965 to 1971 and was President of the Board. He and Mrs. King have four daughters. Three are graduates of Clinton High School and the youngest is a member of the class of 1972.—**Dr. Max A. Heeb**, Sikeston, a graduate of Chaffee High School, gave the 1972 commencement address at the Chaffee High School. He is now serving his first three-year elective term on the Sikeston Board of Education and has been chosen vice-president of the board.

Dr. Burl M. Dillard, St. Louis, presented a paper for the Fifth Congress of the Latin American Society of Proctology in Mexico City on May 15. His topic was "Technique of Groin Dissection for Epidermoid Carcinoma of the Anus."

Dr. Jerome T. Y. Shen, St. Louis, has been appointed by Gov. Warren E. Hearnes as a member of the Governor's Committee on Children and Youth to implement projects initiated or suggested by the 1970 Missouri White House Conference on Children and Youth. He also has been appointed as a member of the Scientific Advisory Committee of the National Coordinating Council on Drug Education.

WASHINGTON

The 1972 Democratic campaign platform calls for establishment of a federally-administered, comprehensive national health insurance system to cover all Americans and to incorporate eventually all federal health programs.

The majority of the Democratic platform committee proposed that the system be financed by the federal government. A minority wanted it financed under Social Security.

The health care plank was hammered out by Democratic policy makers in Washington prior to the presidential nominating convention in Miami Beach. Several positions, including the stand on Health Maintenance Organizations, in the health care plank were similar to those of the American Medical Association.

Health care parts of the platform proposed by the majority of the drafting committee and approved at the 1972 Democratic Convention include the following:

Health Care

Good health is the least this society should promise its citizens. The state of health services in this country indicates the failure of government to respond to this fundamental need. Costs skyrocket while the availability of services for all but the rich steadily decline.

We endorse the principle that good health is a right of all Americans.

America has a responsibility to offer to every American family the best in health care whenever they need it, regardless of income or where they live or any other factor.

To achieve this goal the next Democratic Administration should:

—Establish a system of universal national health insurance which covers all Americans with a comprehensive set of benefits including preventive medicine, mental and emotional disorders and complete protection against catastrophic costs and in which the rule of free choice for both provider and consumer is protected. The program should be federally-financed and federally-administered. Every American must know he can afford the cost of health care whether given in a hospital or a doctor's office;

—Incorporate in the national health insurance system incentives and controls to curb inflation in health care costs and to assure efficient delivery of all services;

—Continue and evaluate Health Maintenance Organizations;

—Set up incentives to bring health service personnel back to inner-cities and rural areas;

—Continue to expand community health centers and availability of early screening diagnosis and treatment;

—Provide federal funds to train added health manpower including doctors, nurses, technicians and para-medical workers;

—Secure greater consumer participation and control over health care institutions;

—Expand federal support for medical research including research in heart disease, hypertension, stroke, cancer, sickle cell anemia, occupational and childhood diseases which threaten millions and in preventive health care;

—Eventual replacement of all federal programs of health care by a comprehensive National Health Insurance System;

—Take legal and other action to curb soaring prices for vital drugs using the antitrust laws as applicable and amending patent laws to end price-raising abuses, and require generic-name labeling of equal-effective drugs; and

—Expand federal research and support for drug abuse treatment and education, especially development of nonaddictive treatment methods.

On birth control, the platform states the following:

—Family planning services, including the education, comprehensive medical and social services necessary to permit individuals freely to determine and achieve the number and spacing of their children, should be available to all, regardless of sex, age, marital status, economic group or ethnic origin, and should be administered in a noncoercive and nondiscriminatory manner.

On rights of veterans:

—MEDICAL CARE: The federal government must guarantee quality medical care to ex-servicemen and to all disabled veterans, expanding and improving Veterans Administration facilities and manpower and preserving the independence and integrity of the VA hospital program. Staff-patient ratios in these hospitals should be made comparable to ratios in community hospitals. Meanwhile, there should be an increase in the VA's ability to deliver out-patient care and home health services, wherever possible treating veterans as part of a family unit.

We support future integration of health care for veterans into the national health care insurance program, with no reduction in scale or quality of existing veterans care and with recognition of the special health needs of veterans.

The VA separate personnel system should be expanded to take in all types of health personnel and, especially, physician's assistants; and VA hospitals should be used to develop state medical schools and area health education centers.

The VA also should assume responsibility for the care of wives and children of veterans who are either permanently disabled or who have died from service-connected causes. Distinction should no longer be made between veterans who have seen "wartime," as opposed to "peacetime," service.

For the elderly:

—Establish federal standards and inspection of nursing homes and full federal support for qualified nursing homes;

—Pending a full national health security system, expand Medicare by supplementing trust funds with general revenues in order to provide a complete range of care and services; eliminate the Nixon Administration cutbacks in Medicare and Medicaid; eliminate the part B premium under Medicare and include under Medicare and Medicaid the costs of eyeglasses, dentures, hearing aids and all prescription drugs and establish uniform national standards for Medicaid to bring to an end the present situation which makes it worse to be poor in one state than in another.

Before the platform was drafted, two of the Democrats' "big guns" on health care in Congress appeared jointly for the first time at a platform subcommittee pre-drafting hearing in St. Louis. They were Rep. Wilbur D. Mills of Arkansas and Sen. Edward M. Kennedy of Massachusetts. They showed themselves together in support of a broad national health insurance, but still were not in agreement over how it should be financed and administered.

The platform committee accepted Kennedy's views on these two points, but Mills' ideas probably will carry more weight when Congress gets around to taking up such legislation.

"The federal government should establish a system of compulsory national health insurance which covers all Americans with a standard, comprehensive set of basic health insurance benefits supplemented by protection against catastrophic costs," said the Mills-Kennedy statement which included the following four "freedom guarantees":

—The federal government should not own and operate the various elements of the health care system.

—The federal government should not remove the freedom of every physician and every patient to choose where and how they will give or receive health care.

—Neither the federal government nor any of its agents shall make any medical judgments in a patient's care; this function is reserved solely to the physician and his peers.

—The federal government shall not make community health policy but shall offer financial and technical support and information and guidelines based on national planning to support local policy formulation.

Dr. John R. Kernodle, then vice-chairman (now chairman) of the AMA Board of Trustees, urged that any national health insurance program supported by the Democratic party be feasible as to benefits, financially responsible and be built on the present proven system of health care delivery.

Jerome P. Lysaught to Discuss NCSNNE Report at Statewide Conference in Jefferson City

A Statewide Conference on Nursing and Nursing Education in Missouri will be held on September 19-20 at Ramada Inn in Jefferson City to discuss the Report and Recommendations of the National Commission for the Study of Nursing and Nursing Education and its implications for the future of nursing in Missouri.

The keynote speaker will be Jerome P. Lysaught, Ed.D., Director of the National Commission. His discussion of the NCSNNE Report during the opening session will be followed by task force leaders representing several disciplines who will present further information and give direction to conferees before they divide into small groups.

The small task force groups will be encouraged to review present and future oriented issues in nursing and nursing education as a first step in constructing a model for the future of nursing in Missouri.

Thirteen Missouri organizations were represented on the multidisciplinary steering committee to plan the conference. They are the Missouri State Medical Association, Association of Osteopathic Physicians and Surgeons, Nurses' Association, Hospital Association, Regional Medical Program, League for Nursing, State Board of Nursing, Commission on Higher Education, State Department of Education, State Student Nurses Association, Practical Nursing Organization, House of Representatives and Nursing Home Association.

All members of the Missouri State Medical Association are invited to participate in the Conference and to pre-register by writing to Mrs. Emylou Keith, 1825 W. McCarty St., Jefferson City, Mo. 65101 before September 1. Registration fee for the two-day meeting and luncheon on September 19 is $10.00. Add $5.50 for the buffet at 6 PM on September 19.

Scandinavian Adventure Tour Planned For MSMA Members in 1973

A 14-day Scandinavian Adventure holiday for 1973 will be the next tour available at a special price for members of the Missouri State Medical Association, according to Assistant Executive Secretary Royal O. Cooper.

Although plans are not complete, the tour to Stockholm, Helsinki and Copenhagen probably will be scheduled for July, 1973.

The tour price covers everything—chartered air transportation, deluxe hotels, American breakfasts at the hotel each morning and gourmet dinners at a choice of finest restaurants each evening. All tips, transfers and other extras make the holiday carefree and enjoyable.

There will be no regimentation. Tour members are free to go when and where they want to go and can join in optional sightseeing.

Members of the tour will fly directly to Stockholm via World Airways 707 private jet with first-class service aboard for four days in Stockholm, where they will stay at the new luxurious Sheraton-Stockholm Hotel located in the center of this city set on islands and rocky bluffs overlooking a lovely harbor. There they will thrill to the magnificent Milesgarden sculptures, the stateliness of Drottingholm Palace and its charming Court Theater and stroll the cobblestone streets or wander through quaint antique shops in medieval Old Town.

From Stockholm, tour members can take a short flight to the fascinating Isle of Gotland and see Visby, the ancient walled city, or visit the Uppsala-Sigtuna Lake Country of old, picturesque towns.

Next stop will be four days in Helsinki, the sparkling capital city of Finland, where majestic forests are interspersed with a coastline of islands famous for their fascinating scenery.

For more adventure, there's an optional two-day excursion to Leningrad, Russia's "Western window on the world" and a planned city of great pastel colored palaces and magnificent onion-domed cathedrals built by the Czars.

Then, there will be four more wonderful Scandinavian days in Copenhagen, the fun-loving Danes' cosmopolitan capital. Here, tour members will revel in the carefree carnival atmosphere of Copenhagen's famed Tivoli Gardens with its illuminated fountains, marching bands, nonstop entertainment and spectacular fireworks.

Shopping and dining in Scandinavia are special delights. There will be tempting window displays and irresistible, bulging boutiques, as well as a choice of elegant restaurants featuring delicious international cuisine.

Details of the tour and registration information will be announced early in 1973.

Continuing Education Coming Events

Sept. 9	**Industrial Injuries of the Hand** Cori Auditorium Washington University School of Medicine St. Louis 63110
Sept. 12-15	**Third Conference on Computer Applications in Radiology** Continuing Education, M.U. School of Medicine Columbia 65201
Sept. 28-29	**Sixth Annual Health Systems Research Symposium** University of Missouri Columbia 65201
Oct. 4-5	**Conference on Child Development and Child Psychiatry** Continuing Education, M.U. School of Medicine Columbia 65201

VECTORCARDIOGRAPHY A WORKSHOP OCTOBER 11-13, 1972

This basic course in vectorcardiography is designed for physicians with a basic understanding of electrocardiography who wish a close exposure to the values and limitations of vectorcardiography.

An intensive three-day program will cover the basics of vectorcardiography and related areas. Major emphasis will be placed on theoretical and practical applications of the technique as related to diagnostic problems. Half of the program will be dedicated to individual analysis of routine vectorcardiograms by the participants under the orientation of the program director and faculty.

Presented by

The American College of Cardiology and
The Institute for Cardiovascular Diseases
Good Samaritan Hospital
Phoenix, Arizona

at

Mountain Shadows Resort Hotel
Scottsdale, Arizona

Program Director

Alberto Benchimol, M.D., Director
Institute for Cardiovascular Diseases
Good Samaritan Hospital

For Information Concerning the Program, Write:

Miss Mary Anne McInerny, Director
Dept. of Continuing Education Programs
American College of Cardiology
9650 Rockville Pike
Bethesda, Maryland 20014

Industrial Health Congress To be Held in Chicago

Members of the MSMA are invited to attend the American Medical Association's 32nd Annual Congress on Occupational Health at the Drake Hotel in Chicago on September 11-12.

Sponsored by the AMA Department of Environmental, Public and Occupational Health, the Congress will present outstanding speakers who will discuss subjects ranging from the AMA Registry on Adverse Reactions Due to Occupational Exposures and Aerospace Medicine to Multiphasic Health Testing in Industry and the Role of Labor Unions in Occupational Safety and Health.

The Annual Physician's Award of the President's Committee on Employment of the Handicapped will be presented during the Congress program at 11:30 AM on September 12. An award luncheon will follow.

There is no registration fee for the Congress. Room reservations should be made directly with the Drake Hotel, Lake Shore Drive & Upper Michigan Ave., Chicago, Ill. 60611.

Missouri Surgeons Elect John S. Spratt President

John S. Spratt, Jr., M.D., M.S.P.H., was elected president of the Missouri Chapter of the American College of Surgeons at the annual professional and business meeting of the Chapter on June 2-3 in St. Louis.

Doctor Spratt is Director of the Cancer Research Center and Chief Surgeon at Ellis Fischel State Cancer Hospital in Columbia.

Harvey R. Butcher, Jr., M.D., St. Louis, Professor of Surgery at Washington University School of Medicine, was elected vice-president. Hugh E. Stephenson, Jr., M.D., Professor of Surgery at the University of Missouri School of Medicine, was reelected secretary-treasurer.

Immediate past-president Robert W. Maher of Springfield was elected to a one-year term on the Council of the Missouri Chapter. Elected to three-year terms were Drs. Phillip B. Foreman, Hannibal; Eugene T. Hansbrough, Poplar Bluff; and Harry S. Jonas, Independence.

Other members of the Council are Drs. Hector W. Benoit, Jr., Kansas City; Max A. Heeb, Sikeston; Virgil Jeans, Joplin; Marshall B. Conrad, St. Louis; Paul G. Koontz, Jr., Kansas City; Leo V. Mulligan, St. Louis; Charles P. McGinty, Cape Girardeau; and Harold L. Gainey, Kansas City.

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RAY G. COWLEY, M.D. *and* **C. A. BRASHER, M.D.,**
Mount Vernon

Hospitalization for Tuberculosis Patients; Necessity for an Individualized Approach

The recent guidelines presented by the American Thoracic Society Ad Hoc Committee for hospitalization (or nonhospitalization) as a factor in the management of active tuberculosis patients were, of necessity, broad in scope and general in nature.[1] For this reason, direct applicability of their recommendations is not feasible. Often, the care must be individualized by demands of physician, patient or institution.

Problems of a wide variety are presented by tuberculosis patients in different geographic settings with widely varying degrees of education, nutrition, income, social standing, extent of disease, availability of outpatient treatment or posthospitalization follow-up facilities and individual cooperativeness or capability for home care. The solutions are of such importance in providing acceptable treatment for active tuberculosis cases that the protective "medical umbrella" provided by the Committee's recommendations is uncomfortably small.

Under some circumstances, serious problems could ensue if these recommendations are followed literally, as was exemplified by the difficulties encountered in one state.[2] This is not to infer that the Committee intended the recommendations to fit every circumstance encountered. However, it is quite apparent that the recommendations made are only marginally applicable to the majority of the patients encountered at such hospitals as the Missouri State Chest Hospital. Some of the patients treated for tuberculosis at the Missouri State Chest Hospital could be safely and acceptably managed by the liberal approach presented. The majority of patients treated, however, here could not be acceptably handled this way.

The combined efforts of a multitude of both dedicated professional and volunteer people over many decades have produced a high degree of excellence in tuberculosis control in the United States of America. Any major change in any part of this program should be scrutinized very closely to ascertain the validity thereof and the ultimate beneficial or deleterious effects that may be produced thereby. We refer specifically to several statements in the Ad Hoc Committee's recommendations that are ambiguous and could easily be misconstrued.

A combination of statements requiring further clarification are "Some patients have home and social conditions that make it impossible for them to receive outpatient treatment" and "Nowadays, the tuberculosis patient should receive most and sometimes all of his treatment as an outpatient." Such clarification should include that a major factor determining need for hospitalization and suitability for discharge is the infectivity of the individuals involved. Further needed qualifying factors are their response to therapy and capability of cooperating with outpatient treatment followup where such facilities are, indeed, available, plus the many variables presented in this article's first paragraph. It is essential that each patient's case be highly individualized. When he presents no public health hazard to anyone else and no treatment success hazard to himself, he is ready for discharge.

A further statement, "Some patients require a period of inpatient care for various reasons," also needs amplification. In addition to infectivity and education of patients, there are many compelling reasons that point to the need of initial hospitalization of every newly-discovered active tuberculosis patient.[2-4]

The problems encountered in managing active tuberculosis in the rural areas of the Ozarks and other predominantly rural areas are different from those in some urban areas. An attempt to provide an all-inclusive, nationwide tuberculosis treatment and control program is not realistic. For example, only 35% of our patients are educated above the eighth grade level (Table 1).

In a previous article on the "Bacteriologic Standards for the Discharge of Patients,"[5] the Committee makes the point that individuals with a low colony count on sputum culture as a result of chemotherapy have a "low degree" of infectivity. They also stated, "The Committee recognizes that although the available evidence emphasizes a low degree of infectiousness of the individual on adequate chemotherapy who is excreting only small numbers of bacilli, there is *still no solid experience in this country that proves this is so.*" This certainly is a key statement. To make the sweeping recommendation that these individuals "who are only slightly more infectious for children"[3] than those who are proven completely negative may, therefore, be safely discharged is not only unjustified, it may be dangerous until solid experience is available that does proves this is so. Perhaps it depends upon whose children are exposed to the patients who are excreting the small numbers of bacilli.

We emphasize this only to make the point that one *cannot* compromise the public health aspects of tuberculosis control, particularly when it comes to the children of our nation. One needs only to recall what a devastating and destructive disease tuberculosis was, particularly among infants and children, to validate this reasonable doubt expressed.

Another important factor in evaluating this problem is that the overwhelming majority of newly-discovered tuberculosis patients have moderately-advanced or far-advanced disease with a high degree of infectivity. The type of patient commonly admitted to the Missouri State Chest Hospital has very extensive disease (Table 2), and the period of time required to produce sputum negativity is often long (Table 3).

For the most part, our patients are rural dwellers with low incomes who put off seeking medical care until they can no longer work or until they are found to have severe symptoms. The Ad Hoc Committee statement, "For those patients hospitalized for tuberculosis treatment for the

TABLE 1

Educational level achieved by patients admitted to the Missouri State Chest Hospital for the first time with active pulmonary tuberculosis for the years 1969-1971. (During this time, five patients were under school age.) Atypical disease is excluded.

Grade Level Achieved	*Number*	*Percent*
No formal education	15	5
1st through 4th grades	35	10
5th through 8th grades	160	50*
High school	104	33†
College	8	2
Total	322	100

* 29% completed 8th grade
† 16% graduated from high school

TABLE 2

Extent of disease present at the time of the first admission to the Missouri State Chest Hospital of patients with active pulmonary tuberculosis for the years 1969-1971. (Based on current NTA classification standards.) Atypical disease is excluded.

Extent of Disease	*Number*	*Percent*
Minimal	20	6
Moderately advanced	96	26
Far advanced	211	65
Total	327	100

TABLE 3

Time from the date of starting therapy to the *Reporting date* of the *first* of a continuously negative series of cultures. (Atypical disease excluded.)

Time Interval	*Number*	*Percent*
6 weeks to 3 months	155	47
3 to 4 months	55	17
4 to 5 months	60	18
5 to 6 months	16	5
Longer than 6 months	41	13
Total	327	100

Adding two weeks to the above time intervals would give the discharge date based on the discharge criteria recommended below.

first time, the length of hospital stay should be short," has very limited application to our patient population, depending on the definition of the word "short." In our facility this reads: "The length of stay should be determined by the time required to render each individual patient noninfectious, as well as by his response to treatment, his cooperativeness, his home status, his social status, his intelligence, his education, and the availability of adequate outpatient facilities."

In the previous Committee comment on bacteriologic standards for the discharge of patients,[5] the statement is made that approximately 50% have negative smears and cultures after two months, 75% after four months, and some will require six months or longer. Is two months or four months considered to be a "short time"? Furthermore, the statement is made that "the rate of disappearance of bacilli is directly related to the extent of the disease." With the percent of far-advanced disease being very high as it is at this and most other tuberculosis centers today, it is not rational to state that the length of hospitalization should be "short." This, again, is a highly individualized matter.

Time required for sputum conversion at the Missouri State Chest Hospital for patients admitted with active tuberculosis for the first time is outlined in Table 3. These patients were on the best therapy, under the best circumstances in a completely modern and up-to-date tuberculosis center. The major factor was the extent of disease being treated.

When is a tuberculosis patient noninfectious? A reasonable and safe criterion is when a reliable laboratory reports at least three consecutive negative adequate sputum or gastric cultures taken at weekly intervals, at six weeks and with two more weekly cultures negative at four weeks. The standards of some installations require up to three months or longer of reported negativity, which is probably too stringent and unnecessarily prolongs hospitalization.

In our opinion, the ATS statement is a compromise with known facts when it defines a safe discharge point as a patient with "several consecutive specimens, of which the majority are negative, and the others with only a few colonies." Tites discusses this problem as presented by individual patients to individual physicians in his statement,[4] "An assumption is being made that patients suffering with active disease become noninfectious at a certain fixed date—up to now, however, we do not know when that 'moment of security' occurs. It seems that the 'moment of security' might very well be individual to each patient and to each regimen." We agree completely that this decision cannot be wrapped up in a neat, easily-defined, all-inclusive package.

The authors discuss their belief that the problems presented by tuberculosis patients in rural areas are of such nature that current recommendations by the American Thoracic Society Ad Hoc Committee for tuberculosis treatment in the United States are too nonspecific, are too liberal and need to be modified before wide application is made. They explain that direct applicability of the recommendations is not feasible because this care must be individualized by demands of the patient, physician or institution. Doctor Cowley is Assistant Chief of Medicine and Director of Medical Education and Doctor Brasher is Superintendent and Medical Director at the Missouri State Chest Hospital.

Marr, in assessing this situation,[6] made the following statement: "The initial drug regimen outlined above ordinarily will reduce the cough and sputum of tuberculosis patients within a few days, and generally within a few weeks the excretion of viable bacilli is halted." This, again, is a highly generalized statement and must be considered an overly-liberal approach to this problem. Such a statement has little value or validity when dealing with the individual treatment of an individual patient in a specific area. No amount of generalization can help the physician in the decision he must make as to when a specific patient is noninfectious or when, all factors being considered, he is capable of taking care of himself on an outpatient basis well enough to insure successful treatment. Furthermore, the statement of the Ad Hoc Committee pertaining to the average time required for negativity production in a large number of patients is hardly compatible with the terms "a few weeks," as outlined by Doctor Marr.

The provisions set forth for tuberculosis management in general hospitals by Stead[5] are especially pertinent. A specific point made by him was that these individuals must be rendered noninfectious prior to discharge. The criteria he sets forth are rational, essential and vigorous. They certainly provide sound guidelines for all to follow. Very few general hospitals, however, can meet these requirements, whereas most established tuberculosis centers have met and exceeded these for many years.

Until general hospitals are capable of meeting such criteria, the rapid and widespread shift of tuberculosis care to such hospitals cannot be condoned. Further evidence that the transfer of tuberculosis care to general hospitals may not be highly successful in the near future is outlined in the statement by Saliba and Anderson:[2] Not only are most general hospitals not ready, they are not willing to accept tuberculosis patients. It would appear that if general hospitals are to meet the necessary criteria for tuberculosis care, the special effort required will limit such centers to one or a few selected general hospitals in each state and will result in establishing a tuberculosis center or centers in each state with close attachment to a general hospital. This would enhance the non-TB care available, but accomplish little else.

One way of insuring survival of established tuberculosis centers in the face of diminishing numbers of tuberculosis patients is to open them to accepting the burgeoning number of nontuberculosis, cigarette-induced diseases—emphysema, bronchitis and lung cancer—that are overwhelming hospitals everywhere. Where this has been done in a few places in this country, the viability and provision of good, overall care for all types of chest patients and coexistent nonchest disease states is possible and highly effective. This trend is recommended, as opposed to the dispersion of tuberculosis patient-care to a large number of community hospitals or a variety of types of community physicians. At the Missouri State Chest Hospital, this has been an excellent and productive arrangement for both the patients and the staff. Approximately 70% of admissions are now nontuberculous in nature. A staff of internists, pulmonary disease specialists, generalists and thoracic surgeons backed up by a consulting staff in all subspecialties provides highly acceptable overall care.

As outlined by Doctor Stead[3] and the Committee,[5] the absloute and compelling need for complete and infallible outpatient services for patients with active tuberculosis after discharge from the hospital leaves no room for any compromise or leeway. In many areas in the USA, this poses an almost insoluble problem which has not been met widely and which will require much study and action before it can be satisfactorily consummated. This problem exists even in foreign countries where the criteria for safety are not as rigid as in the United States.[7]

The absolute requirement for completely reliable laboratory facilities for inpatient and outpatient management of tuberculosis patients is wisely stressed,[1, 3, 5] yet attempts to develop such Mycobacteriological Laboratories outside of tuberculosis centers has met with only limited success.

Another factor is that the primary drug resistant problem in this country appears to be increasing at least in one pediatric population, and may, as a result of spill-over from Vietnam, become a more widespread problem than it is today.[8, 9] This phase of laboratory management requires highly expert laboratory technicians with full awareness of the problems and difficulties involved in delineating sensitivities in order to provide rational and successful therapy in resistant cases.

There are exceptions to the rule that all patients with positive sputum must be hospitalized and not be discharged until sputums are proven negative on a series of consecutive cultures. However, these are few and far between, cannot be generalized and must be highly individualized, based on the patient's own problems at the hospital, with self and at home.

To deal with compromise in managing a disease that has produced as much havoc in the world as tuberculosis cannot be acceptable to the majority of practicing physicians in this field and, certainly, not to public health workers whose responsibility it is to maintain rigid tuberculosis control in this country. The excellent degree of tuberculosis control now and previously present in this country for the past 20 to 30 years came about before the advent of any effective chemotherapy. When chemotherapy did become available, the slope of the decreasing incidence curve for tuberculosis mortality was barely altered. This provides room for doubt that we can rely so fully upon treatment to do what good preventive measures have done so effectively. There are many loopholes in the administration of proper tuberculosis therapy, not the least of which is inability or lack of capability of patients to take the medication as prescribed for various individual psychological and social reasons.

Tuberculosis is not easy to treat, and expertise must be exercised by physicians and other hospital personnel in handling all phases of the disease. It is impossible to learn and practice acceptable tuberculosis treatment from a book. From personal experience with the management of large numbers of tuberculosis patients in a pulmonary disease training program with a wide variety of physicians involved, it was evident that four to six months of actual practice on tuberculosis wards is necessary to fully educate physicians in the basic aspects of treatment.

In this country, medical schools, internships

(Continued on page 671)

RICHARD H. FALLON, M.D. *and* **JOB PONTILLAS, M.D.,**
St. Louis

Asynchronous Bilateral Mammary Carcinoma

The incidence of asynchronous bilateral breast carcinoma was found to be 7.9% in 130 patients treated surgically for mammary carcinoma. The significant factor in the development of a second carcinoma appears to be length of survival after treatment of the first carcinoma. The authors suggest that if prophylactic mastectomy of the second breast is to be considered, it should be considered for younger patients with the best prognosis. The authors are from the Department of Surgery, Missouri Pacific Employees Hospital Association. Doctor Fallon also is from the Department of Surgery, Washington University School of Medicine-Barnes Hospital.

In THE RECENT REPORT of the Cooperative International Study of Treatment of Early Mammary Carcinoma,[1] multiple modalities of primary treatment were compared in relation to five- and ten-year patient survivals. While the report was concerned with the modalities of primary treatment, it did not mention a factor which could and probably did affect the ten-year survival rate. This is the possibility of the development of a second mammary carcinoma after the successful treatment of the first mammary carcinoma.

Attention was first focused on this possibility by Kilgore[2] in 1921 when he pointed out that if a patient who had one breast removed for carcinoma survived five years, she had three to five times the likelihood of developing a carcinoma in the second breast. With the possibility of the development of a second mammary carcinoma, Kilgore discussed consideration of prophylactic removal of the second breast. Since then, there has been only intermittent discussion about the possibility of prophylactic mastectomy following successful treatment of primary mammary carcinoma.

Recently, a report[3] on the survival of patients with bilateral mammary carcinoma denied the need for prophylactic mastectomy. This conclusion was based on a five-year survival rate following the second mastectomy, which compared favorably with that following mastectomy for the first mammary carcinoma. In that report, the incidence rate of the development of a second mammary carcinoma was 10%.

In order to refocus interest on the potential need and justification of prophylactic mastectomy, we reviewed the incidence of asynchronous bilateral mammary carcinoma at our hospital in an attempt to determine if there were any factors in this disease which might help or influence a decision for prophylactic mastectomy.

METHODS AND RESULTS

We reviewed the records of women who had been treated for mammary carcinoma from 1952 through 1962 and had been followed in the Tumor Clinic of the Missouri Pacific Employees Association Hospital, St. Louis. The age of the patient, location and size of the initial lesion, lymph node involvement, histiologic appearance of the lesion and time interval between first and second mammary carcinomas were noted. Because of the failure of the pathologist to classify the histology of all lesions beyond the diagnosis of carcinoma and the indefiniteness of the preoperative measurements of the lesions, these two parameters were dropped from the study.

A total of 133 women with primary carcinoma of the breast was treated between 1952 and 1962. Two cases with simultaneous bilateral carcinoma and one case of cystosarcoma phylloides were not included in the study. Of the 130 women included in the study, ten (7.7%) developed carcinoma in the contralateral breast. Tables 1 through 3 report the occurrence of the

TABLE 1

OCCURRENCE OF SECOND CARCINOMA IN RELATION TO LOCATION OF FIRST CARCINOMA

	No. of Cases	*2nd Carcinoma*
Inner half of breast	58	5(8.6%)
Outer half of breast	62	4(6.4%)
Central half of breast	10	1(10%)

TABLE 2

OCCURRENCE OF SECOND CARCINOMA IN RELATION TO TYPE OF TREATMENT OF FIRST CARCINOMA

	No. of Cases	*2nd Carcinoma*
Radical mastectomy	33	1(3.3%)
Radical mastectomy plus radiation	88	9(10.3%)
Simple mastectomy	4	0
Palliative measures only	5	0

TABLE 3

OCCURRENCE OF SECOND CARCINOMA IN RELATION TO PRESENCE OR ABSENCE OF INVOLVED LYMPH NODES IN SURGICAL SPECIMEN OF FIRST CARCINOMA

	No. of Cases	*2nd Carcinoma*
Positive lymph nodes	78	4(5.1%)
Negative lymph nodes	51	5(9.8%)
Not known	1	1

TABLE 4

OCCURRENCE OF SECOND CARCINOMA IN RELATION TO AGE OF WOMAN AT TIME OF TREATMENT OF FIRST CARCINOMA

Age	*No. of Cases*	*2nd Carcinoma*
30-39	10	1(10%)
40-49	28	2(7.1%)
50-59	37	3(8.1%)
60-69	36	4(11.1%)
70-79	16	0
80-89	3	0

second mammary carcinoma in relation to the location, type of treatment and the presence or absence of involved lymph nodes in the surgical specimen of the first mammary carcinoma. The relation between the occurrence of a second carcinoma and the age of the woman at the time of first carcinoma is reported in Table 4, while the time interval between the diagnosis of the first carcinoma and the occurrence of the second carcinoma is given in Fig. 1. The five-year survival rate of those patients undergoing surgical treatment of the second mammary carcinoma was 60%.

Discussion

Our incidence of asynchronous bilateral breast carcinoma closely approximates that reported by other authors and falls within the range of 1% to 12%, which is found in various reports.[4-7] As pointed out by Kilgore[2] and stressed by others, whether or not the second lesion is a second primary or a metastasis is often difficult to determine. The lack of evidence of other metastases would make it appear as if the second lesion is a second primary, although solitary metastases are possible. Moreover, a solitary metastasis spreading to the other breast most likely would be by lymphatic spread and, thus, would be expected more frequently in inner half lesions. Yet, this was not the case in our series or in others.

Currently with cancer in general and mammary carcinoma in particular, the only effective way to improve survival involves the surgeon and surgical treatment. Research has yet to discover the etiologic agent or agents and a means of preventing the development of cancer. For the surgeon, however, earlier diagnosis and various operative procedures with or without adjuvant therapy appear to have influenced survival little, if at all. A seldom used or considered, but effective, way to prevent carcinoma from developing, if the cause is not known, is to remove the target organ. In mammary carcinoma, this is a technically feasible procedure. Yet, mastectomy is both physically mutilating and psychologically traumatic. The argument for prophylactic mastectomy should be directed toward a high risk group, if such a group could be defined. It is obvious from our and other studies that once a woman has developed mammary carcinoma, she is in a high risk group for developing a second mammary carcinoma. Even at an incidence rate of 10% for a second mammary carcinoma, some surgeons might not feel that this risk is high enough to warrant prophylactic mastectomy.

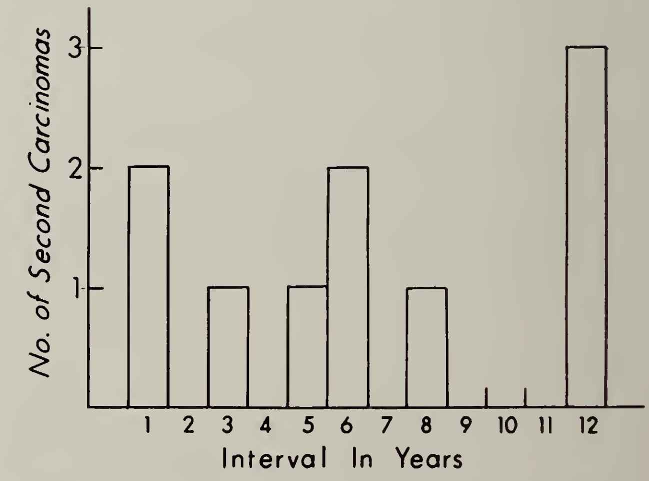

Fig. 1 Interval between first carcinoma and occurrence of second carcinoma.

Thus, it is necessary to look at this high risk group to determine which women have the highest probability of developing a second mammary carcinoma.

In our group, it appears that the highest risk group would be those women who have the best chance of cure from their first mammary carcinoma and, thus, have a chance to live long enough to develop a second mammary carcinoma. It appears as if the length of survival after successful treatment of the first mammary carcinoma seems to be the main factor for the probability of developing a second mammary carcinoma. Thus, younger patients without lymph nodes, who have the best chance of long term survival, appear to be those most likely to develop a second mammary carcinoma.

Although we do not have the information on our patients, other authors[5, 7] have placed patients with multifoci type of tumors, such as lobular carcinoma, in a high risk group as well as those patients with a family history of breast carcinoma.

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Hospitalization for Tuberculosis Patients

(Continued from page 668)

and medical residencies provide little or no training in tuberculosis. Even after working for years with tuberculosis, tuberculosis experts are constantly confronted with problems that stretch their expertise to the breaking point. A training program for physicians who are to handle tuberculosis in and out of the hospitals is deemed a necessity in the interest of good patient care, as well as good public health practices. A recent and most pertinent study[10] shows a serious lack of understanding of the proven treatment and control principles for tuberculosis on the part of a variety of community physicians. Although this information is available, it is not being properly utilized. This study makes a very clear point that either the shift of tuberculosis care to general community hospitals and physicians is premature or the educational efforts by those responsible have been inadequate.

For those who witnessed the ravages of tuberculosis in the human body and the treatment difficulties prior to the advent of INH in 1952, the only answer to the question of hospitalization for tuberculosis patients is "no compromise with known facts and proven practices by premature acceptance of reccommendations based on theoretical principles." Furthermore, the reason for the frenetic stampede to drastically shorten the hospital stay or not to hospitalize tuberculosis patients at all is not really clear. One reason given by the Ad Hoc Committee is to improve tuberculosis care. There is a great deal of evidence that this trend will do just the opposite until such criteria as proposed by Stead can be fully met.

Acknowledgements: The authors wish to express appreciation to Donna Evans and Barbara Turk in the Medical Records Section of the Missouri State Chest Hospital for their efforts in compiling the data utilized for the tables.

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HERBERT B. TAYLOR, M.D., *St. Louis*

Stromal Sarcoma of the Breast

Case Report

Sarcomas of the breast, which constitute less than 1% of all malignant mammary lesions,[1] have variable histologic appearances. This, in association with the rarity of the lesion, has resulted in diagnostic, therapeutic and prognostic difficulties for both the surgeon and the pathologist. Cystosarcoma phyllodes, fibrosarcoma, liposarcoma, hemangiosarcoma, lymphangiosarcoma, rhabdomyosarcoma and lymphosarcoma are all categorized under the general term *sarcoma* by Ackerman,[2] and Berg.[3] Others[4, 5] have divided this group of tumors into four distinct entities describing cystosarcoma phyllodes as a "well-defined entity" with adenomatous and epithelial components present histologically. Lymphangiosarcomas, as well as hemangiosarcomas, are described as distinct pathologic processes with specific clinical implications. The remaining heterogenous tumors—fibrosarcomas, neurosarcomas, liposarcomas and myosarcomas—are lumped under one classification and designated "stromal sarcoma," since they are similar in histological pattern and clinical behavior. This report is of an instance of stromal sarcoma which presented unusually and took an unusual course.

Case Report

A 43-year-old housewife presented at Saint Louis University Hospital on Nov. 17, 1970 with a one-month history of painless swelling in the right breast. The patient and her husband denied previous breast enlargement or nipple discharge. The enlargement was progressive rather than sudden.

The authors report an instance of stromal sarcoma which presented unusually and took an unusual course. This case appears to be an exception to the general rule that "stromal sarcomas" are tumors that grow slowly. Doctors Kaminski and Taylor are from the Departments of Surgery and Surgical Pathology, St. Louis University Hospital.

The patient was mildly obese and not acutely ill. Her blood pressure was 130/78 and her pulse rate was 84 beats per minute. The right breast measured 40 cm. in diameter; it was five times larger than the left breast. The skin overlying the mass was thin and tense with areas of blistering and ecchymosis. It was movable on the chest wall and consisted of alternating cystic and solid areas. There were no palpable regional lymph nodes.

Her hemoglobin level was 9.3 gm/100 ml. Chest x-ray showed a large mass overlying the right hemithorax (Fig. 1), and mammograms were compatible with cystosarcoma phyllodes. Needle biopsy of the mass returned hyalinized fibrous tissue. The patient was transfused with 2 units of whole blood, and she underwent simple mastectomy on the right (Fig. 2). The fascia of the pectoralis major was removed along with the specimen, and a large split thickness skin graft was employed to provide skin coverage. Her postoperative course was unremarkable and the patient was discharged on the 12th postoperative day.

The specimen weighed 7,820 gm. On cut section, there was central hemorrhage with organized clot surrounded by light tan tissue, which was necrotic in some areas and gelatinous in others. Histologically, the tumor was highly cellular and purely mesenchymal with circumscribed margins and central hemorrhage. The cells varied from spindle-shaped to pleomorphic with bizarre multinucleated giant cells. A number of cells had abundant eosinophilic cytoplasm and resembled rhabdomyoblasts, but no cross striations or myofibrils were indentified. In areas of greatest mitotic activity, there were from 15 to 18 mitotic figures in ten consecutive high power fields. Vascular or lymphatic invasion was not identified. It was typically of the "stromal sarcoma" category (Figs. 3 and 4).

The patient was readmitted a month later with severe back pain which localized at T-10 and a right pleural effusion. On thoracentesis, malignant cells were found. A compression deformity of the ninth thoracic vertebra was seen on x-ray as well as a large paraspinal mass. Lytic lesions were evident in the second and fourth lumbar vertebrae and right femoral shaft. Orthovoltage radiotherapy was instituted to the thoracic spine. Within a week, the patient was paraplegic in both lower extremities without bladder sensation. She refused operative intervention

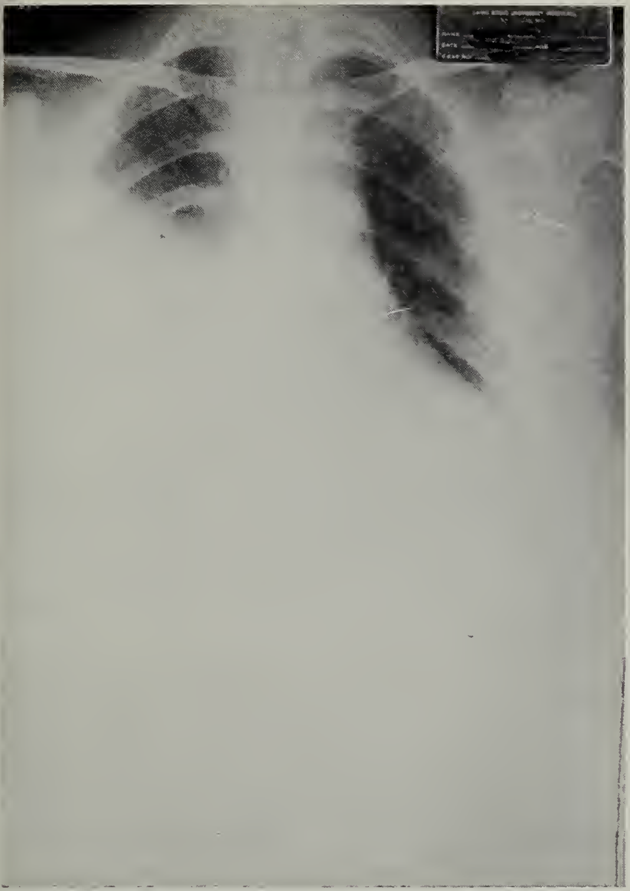

Fig. 1 Chest x-ray of large soft tissue mass overlying the right hemithorax.

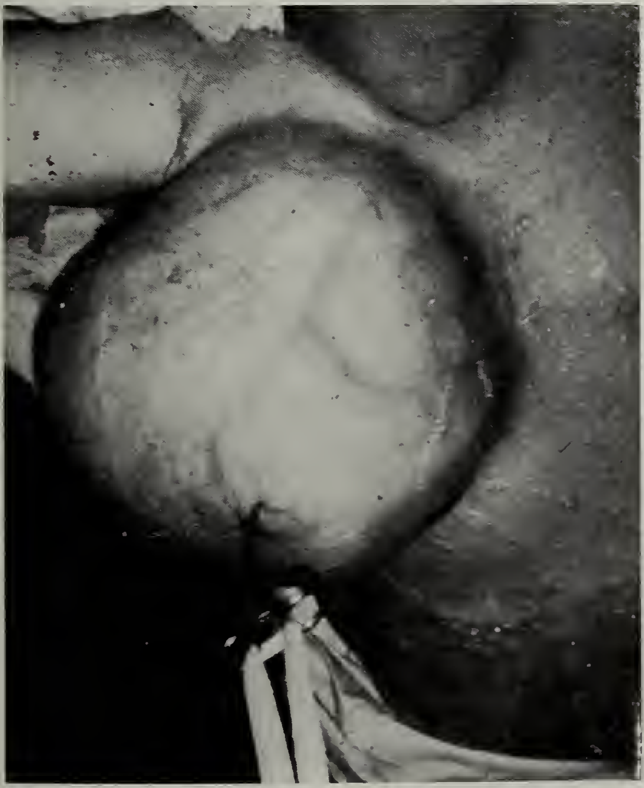

Fig. 2 Right breast tumor at the time of operative removal.

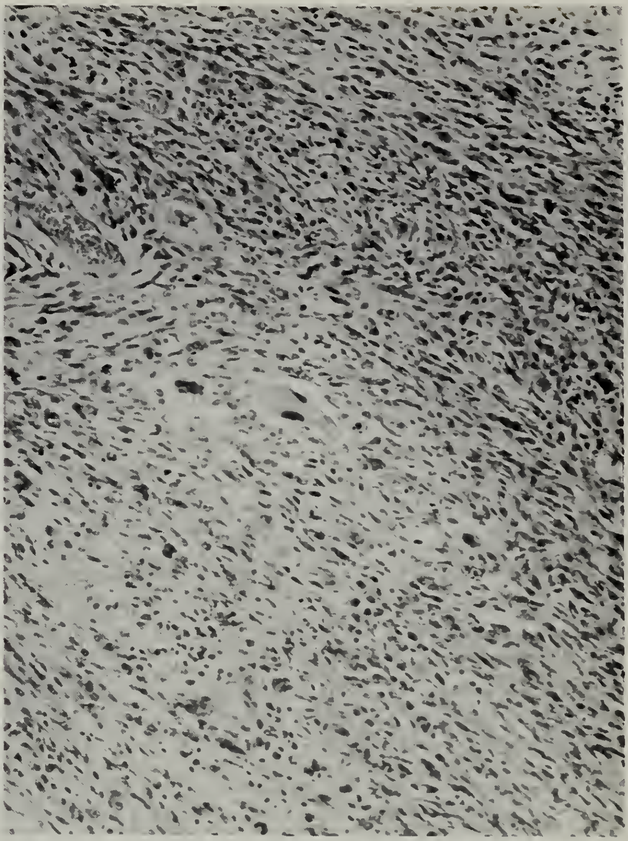

Fig. 3 Histologic specimen—low power, H and E stain.

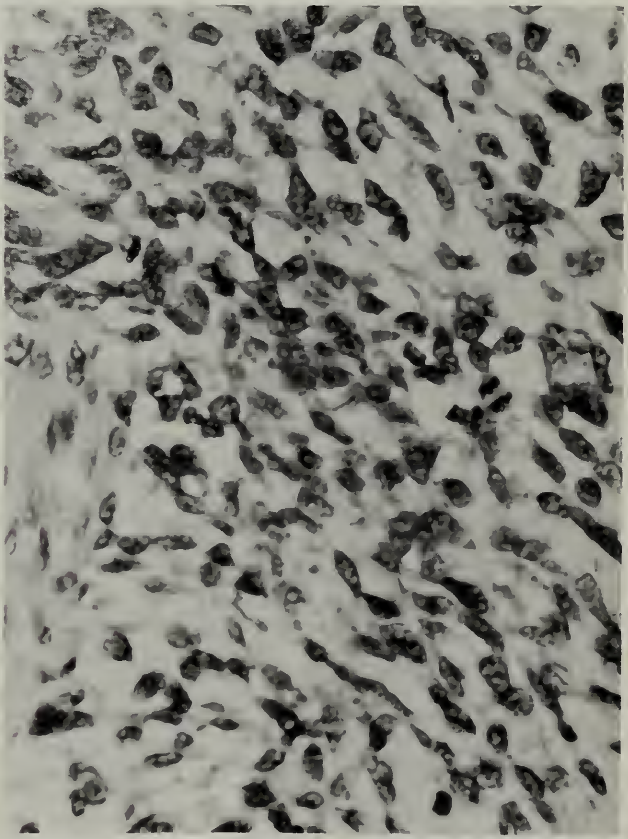

Fig. 4 Histologic specimen—high power, H and E stain.

TABLE 1

COLLECTED CASES OF STROMAL SARCOMA OF THE BREAST

Author	*Number of cases*	*Average Age*	*Age Range*	*Primary Therapy* EXCISION	SIMPLE MASTECTOMY	RADICAL MASTECTOMY	*Local Recurrence*	*Five-Year Survival Actuarial %*
Berg *et al*	25	48	25-64	15	4	6	10[*]	81
Oberman[6]	5	53	25-67	3	—	1	3	30
Norris and Taylor	32	49	13-84	12	12	8	11	73
Botham[7]	34[†]	49	21-69	7	3	12	13	—

[*] Nine were associated with local excison.

[†] Contains five tumors designated "fibrosarcoma and carcinoma" and five tumors called "malignant mixed tumor."

and 1,800 rads were administered appropriately with relief of pain but presistence of paralysis. She died four months after mastectomy. Autopsy permission was refused.

Discussion

The clinical characteristics of a tumor-designated stromal sarcoma are as numerous as is the behavior of mesenchymal tumors in general. The presence of lipomatous, fibrous and muscular elements in the same tumor often render its origin uncertain and the outcome indeterminable. In a series of 25 cases of stromal sarcoma, Berg[3] reported an actual five-year patient survival rate of 81%. Fifteen patients were treated initially with local excision and nine developed a recurrence. Therefore he strongly advocated mastectomy as opposed to simple excision. Oberman[4] reported five patients with "fibrosarcoma" which histologically correlated with stromal sarcoma. Four of these were treated with local excision and three recurred locally. Three of the five died within four years as a direct result of the tumor.

Norris and Taylor[5] reported 32 cases of mesenchymal tumors with an actuarial 73% survival rate at five years. They correlated the degree of infiltration and mitotic activity with survival and found that tumors with infiltrating, rather than pushing, borders were much more likely to recur and carried a much higher mortality rate. They concluded that tumors with five or more mitotic figures per ten high power fields were capable of metastasis.

TABLE 2

CHARACTERISTICS OF STROMAL SARCOMA AND CYSTOSARCOMA PHYLLODES

	Stromal Sarcoma	*Cystosarcoma Phyllodes*
Patient age (average)	49	40
Age range	13-84	15-86
Growth pattern	Slow	Rapid from small mass
Direct extension	Frequent	Frequent
Axillary metastasis	Infrequent	Infrequent
Systemic metastasis	26%	17%[8]
Five-year actuarial survival	61%	76%[8]

Axillary node metastasis is infrequent, and unless nodal involvement is clinically evident, axillary dissection contributes little to survival.[5] Most recurrences involve direct extension to thoracic structures or pulmonary metastasis.[3] The salient clinical features of the collected cases are presented in Table 1.

The present case appears to be an exception to the general rule that "stromal sarcomas" are slowly growing tumors. This is in contrast to the usually rapidly appearing cystosarcoma phyllodes.[5] The characteristics and malignancy of the two tumors are compared in Table 2.

No statement can be made regarding the effectiveness of radiotherapy or chemotherapy for control of either the primary tumor or metastasis. Use of radiotherapy was successful in controlling this patient's skeletal pain.

Summary

Stromal sarcoma of the breast is a mesenchymal tumor with no epithelial component, distinctly separate from cystosarcoma phyllodes, hemangiosarcoma and lymphangiosarcoma. The contour of the tumor can be either pushing or infiltrating and the capability of the tumor to metastasize, as with other soft tissue sarcomas, can be predicted by the number of mitotic figures present. Primary therapy should consist of complete excision with adequate margin, usually a simple mastectomy. Axillary dissection is recommended only if nodes are clinically palpable. Local recurrence is frequent with simple excision. Approximately 25% of these tumors are capable of metastasizing systemically, which corre-

(Continued on page 677)

HAL G. BINGHAM, M.D. *and* **PINIT SUTHUNYARAT, M.D.,**
Columbia

Carcinoma of the Ear

Carcinoma of the ear should be relatively easy to diagnose. However, late treatment has been the rule. The rate of local recurrence remains high, especially for tumors of the ear canal.[1] Most patients come to the physician during the advanced stage of disease even though they recognized neoplastic change much earlier.[2] We have undertaken an analysis of our experience with carcinoma of the ear at the University of Missouri Medical Center in Columbia from 1962 to 1971.

Material

Forty-three patients with carcinoma of the ear have been followed during the past nine years (1962 to 1971). All of the patients were examined by the senior author, who is a member of the Head and Neck Tumor Board.

The patients' records were reviewed and the final disposition or recent follow-up was obtained by clinic visit, letter or death certificates. The follow-up period varied from one to nine years. Twenty-one patients were followed more than three years after treatment. There were 35 men and eight women with the average age of 72.2 years.

Pathological Diagnosis and Treatment[3]

Squamous cell carcinoma was present in 56% (24) of the cases and 35% (15) were basal cell carcinomas. Bowen's disease (2), malignant melanoma (1) and carcinoma in situ (1) were found in the remainder of cases of the series.

Thirty-one patients underwent operative treatment, radiotherapy was given to eight patients and combined radiotherapy with surgery was utilized in three cases. One patient received electro-desiccation for advanced cancer.

Table 1 lists the pathological diagnosis and method of treatments.

Results

Thirty-six patients were studied, since seven patients were lost to follow-up. Of the patients who could be followed, 23 or 64% were alive and free of tumor at the end of the study. Thirteen patients or 36% had succumbed during the study. However, only six of the 13 patients had residual tumor at the time of their deaths and the cause of death was attributed to the original tumor in only four individuals.

TABLE 1

HISTOLOGICAL DIAGNOSIS AND TREATMENTS

Histological Dx.	*Number*	*Surgery*	*Radiation*	*Combined Surgery and Radiation*	*Misc.*
Squamous cell carcinoma	24	17	3	3	1 Electrodesiccation
Basal cell carcinoma	15	10	5		
Bowen's Disease	2	2			
Carcinoma in situ	1	1			
Melanoma	1	1			
Total	43	31	8	3	1

Two patients had local recurrence after surgical treatment. Re-excisions were performed and there was no subsequent evidence of recurrence.

Table 2 illustrates the cause of death of patients with proven carcinoma.

Results in Specific Groups

Squamous Cell Carcinoma

Twenty-four Patients

Fifteen patients were treated during the period from 1962 to 1968, and their records were available for a three-year follow-up study. Twelve patients were alive and free of tumors with a three-year survival rate of 80%. Surgical treatment was performed on ten of these patients, while two patients received radiation therapy. Three patients received palliative treatments, i.e., palliative radiation in one case, 5-Fluorouracil intra-arterial infusion followed by palliative resection in one case and combined radiation and surgery in one case. All three patients died within one year of treatment.

TABLE 2

CAUSES OF DEATH IN PATIENTS WITH PROVEN CARCINOMA

Case	*Pathology Dx.*	*Treatments*	*Causes of Death*
1	Squamous cell carcinoma	Electrodesiccation, palliative	Uncontrolled gastro-intestinal hemorrhage
2	Squamous cell carcinoma	Therapeutic radiation	Malignant lymphoma
3	Squamous cell carcinoma	Palliative radiation	Cervical metastasis and mastoid invasion
4	Squamous cell carcinoma	Surgery and chemotherapy	Mastoid invasion and cervical metastasis
5	Squamous cell carcinoma (Auditory canal)	Combined radiation and surgery	Bilateral cervical and right axillary metastasis
6	Basal cell carcinoma	Surgery	Local recurrence, with patient deferring further treatment

Of the remaining patients followed for less than three years, one patient had only been followed for two years and was free of tumor. Five patients died, but the cause of death in each case was not from carcinoma of the ear. Three patients were lost to follow-up.

Basal Cell Carcinoma

Fifteen Cases

There were ten patients who had been followed for more than three years with only one death. The three-year survival rate was 90%. Eight patients received surgical treatment and one of these patients died because of recurrence of tumor. Radiotherapy was utilized in two patients with no recurrence during the three-year follow-up.

Of the remaining patients followed for less than three years, two patients died without evidence of carcinoma of the ear. Three patients were lost to follow-up.

Bowen's Disease and Carcinoma in Situ

Three Cases

All three patients underwent excisions and were cured.

This report presents an analysis of the authors' experience with carcinoma of the ear at the University of Missouri Medical Center from 1962 to 1971. They report results in specific groups and conclude that early diagnosis and adequate initial therapy by either surgery or radiation are the ideal cancer therapy. Doctor Bingham is Chief and Doctor Suthunyarat is a Resident, Section of Plastic Surgery, University fo Missouri Medical Center.

Malignant Melanoma

One Case

This patient died two years after surgical treatment but postmortem examination did not demonstrate residual tumor or metastasis.

DISCUSSION

Carcinoma of the ear represents about 5.5% to 8% of total skin cancers.[1-4] The biological characteristics of auricular carcinoma are generally the same as cancer of the exposed surfaces of the body. Sex, race, chronic exposure to wind and sun, frost bite, insect bite and trauma have all been considered to play a part in the etiology of cancer of the external ear. The average age for patients in this group is 72 years, which is about the same age distribution found in other studies. There is an incidence of malignancy higher in Caucasion individuals with fine texture of skin and blond hair.[5] No Negro patients were found in the present study. The disease favored the male population in a ratio of 4:1, presumably because men have more outdoor activities than women.

Broders[6] has estimated that 84% of auricular cancer involves the external ear; 12%, the external auditory meatus; and 1.5%, the middle ear and mastoid.

In 1956, Schenck[7] presented a classification of malignant ear tumors. Most authors consider squamous cell carcinoma the most frequent type of auricular cancer, but Lewis[3] and Mohs[8] reported that two thirds of the cancers of the ear were basal cell carcinomas.

At the University of Missouri Medical Center, surgical treatment was carried out in 72% of the cases, whereas radiation therapy was given to 19% of the patients. A combination of both modalities was used in 7% of the cases and electro-desiccation was used in one case.

Fifteen patients with squamous cell carcinoma have been followed more than three years with a three-year survival rate of 80%. The five-year survival rate also was 80%, but only ten patients were available for study for that period of time.

Three-year and five-year survival rates were 90% for the patients with basal cell carcinomas of the ear.

Glass[9] pointed out that recurrent tumors occurred 50% of the time in six months and nearly 100% of the time in two years.

One patient with basal cell carcinoma died because of temporal bone involvement. A few cases of basal cell carcinoma with lymphatic metastasis have been reported, but we found no evidence of metastatic basal cell carcinoma in our series.[10-12] Shewe reported 23 patients with lymphatic metastasis among 335 patients with squamous cell carcinomas of the ear or an incidence of 6.9%.

The prognosis for patients with carcinoma of the ear is poor whenever deep structure invasion or lymphatic metastasis is present. Because of the late diagnosis in the patient with carcinoma of the ear, even though it is in an easily observable location, adequate first treatment plays an important role in cancer control.

SUMMARY

Analysis was made of 43 cases of carcinoma of the external ear at the University of Missouri Medical Center during the years from 1962 to 1971. However, there were seven cases lost to follow-up. There were 24 cases of squamous cell carcinoma, 15 cases of basal cell carcinoma, one case of melanoma, two cases of Bowen's disease and one case of carcinoma in situ. The three-year and five-year survival rates were coincidentally the same figure; 80% survival for the squamous cell carcinoma group and 90% survival for the basal cell carcinoma group. Early diagnosis and adequate initial therapy by either surgery or radiation are the ideal cancer therapy.

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Sarcoma of the Breast

(Continued from page 674)

lates well with an accumulated five year survival rate of 61%.

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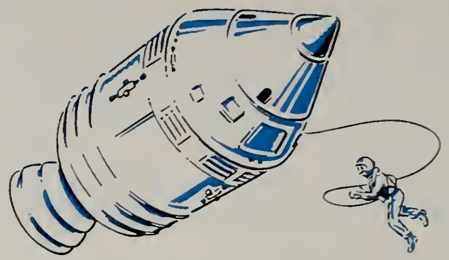
The cooperation of physicians is requested in the referral of patients with melanomas and sarcomas of soft tissue and bone for studies being conducted by the National Cancer Institute's Surgery Branch at the Clinical Center, National Institutes of Health, Bethesda, Md. Upon completion of their studies, patients will be returned to the care of the referring physician who will receive a summary of findings. Physicians interested in having their patients considered for admission to these studies may telephone or write to Alfred S. Ketcham, M.D., Clinical Center, Room 10-N-116, National Institutes of Health, Bethesda, Md. 20014. AC 301-496-4164.



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You would have been proud of your Missouri button on Monday, June 19, as Dr. Durwood Hall ascended the podium to receive an Award of Recognition for his long and able service in the Congress on behalf of the Medical Profession. He was followed 15 minutes later by Michael Davis of West Plains who received one of the two national awards for Scientific Achievement by High School Students. His display at the Convention Center was entitled "Refraction with a Laser." He has already been accepted for the six-year accelerated program at University of Missouri-Kansas City.

Walter T. Gunn, M.D.

Did you hear the speaker who said, "All the American patient-consumer expects of the Health Industry today is God at his bedside promising immortality with no fee whatsoever." Or the speaker who said, "The IRS Tax form is just like a laundry list—either way you lose your shirt." Or the member who stood behind the "Gay Group" picket line on Sunday and shouted, "Happy Father's Day."

The editor of the Woman's Auxiliary magazine reported that after the last Atlantic City convention, she received a deluge of letters complaining about "Poor transportation, antediluvian hotels, few good eating places and no adult entertainment." The response of the New Jersey delegation—"No violence, no pickets." The admonition to the editor of *Today's Health* magazine to discontinue description of exotic and bizarre sexual behavior in a magazine advocated for subscription by high school and college libraries. Such material is not adapted to the impressionable, experimental teenage mentality.

Parliamentary procedure is a wonderful thing. At one time, the House of Delegates found itself in the position of forbidding cigarette smoking in the House of Delegates but tolerating the use of "pot." With regard to partners signing each other's operative records, "The hand that wields the scalpel should also wield the pen."

Present plans call for "shoveling out MDs in quantity with no regard to quality." "HMOs will be a contest for medical care between the worried well and the genuinely sick." Also, "They offer the carrot of money with the stick of veiled threat." "The American people are too mobile, too sophisticated, as a result of which they spend two million per year on quackery."

Delegate data: The average age of Delegates in the AMA House of Delegates is 58.4 years. The oldest Delegate is 74; the youngest is 32.

Arguments by the Speaker in favor of unionization, "Harry Bridges conducts no popularity plebiscite. It takes 38 hours of your work week to cover the overhead. In the bureaucratic mind, fiscal consideration outweighs medical care. The free marketplace no longer exists—CHAMPUS, Medicare, Medicaid, the Price Commission's 2.5% ruling and the new concept of UCR by at least one insurance company have destroyed it."

For rebuttal see Dr. Carl F. Hoffmann's Inaugural Address.

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Woman's Auxiliary

AMA AUXILIARY—50 YEARS

I am still filled with pride for the tribute which was paid to the AMA Woman's Auxiliary at its 50th Anniversary Convention at the St. Francis Hotel in San Francisco on June 18-22. And, I promise you that after seeing the efforts that have been made by members of our own Missouri county auxiliaries, it was gratifying to hear them being praised for the advances they have made.

These 50 years of outstanding achievement were saluted with an exciting program which was interspersed by a musical tribute to the MDs to the tune of "Mame" and a 1920 style show. Some of the highlights of those years were the founding meeting in St. Louis in 1922; the first annual meeting the following summer in San Francisco; the growing involvement of the Auxiliary in legislation; Auxiliary leadership during World War II in recruiting nurses for the U.S. Cadet Nurses Corps, plus the service of thousands of Auxiliary members in many other areas; and Auxiliary leadership in sponsoring Health and Careers Clubs and in raising more than $6 million for nursing and allied health career scholarships and loans.

Mrs. Keith D. Jones
President

Mrs. G. Prentiss Lee, President of the AMA Woman's Auxiliary, received a citation from Wesley W. Hall, M.D., President of the AMA. In turn, she presented a check for $740,388 to John M. Chenault, M.D., President of the AMA Education and Research Foundation (AMA-ERF). This marked the Auxiliary's largest single contribution. Since 1951, we have raised $5,487,399 for the AMA-ERF.

Hearing Art Linkletter speak on the problem of drug education and ways in which the Woman's Auxiliary can be of service left no doubt in my mind that we must work harder in this area. He suggested using "pillow talk" to remind our husbands that they have a tremendous responsibility every time they prescribe a psycho-active drug, in campaigning for realistic drug education in the schools (including films that "tell it like it is") and in launching drives to provide room and medical treatment for addicts in hospitals where they will be treated like the ill and not as criminals.

Victor Weingarten, director of the President's Committee on Health Education, told those in attendance that they can be a formidable force in the areas of health education programs and legislation.

Mrs. Robert F. Beckley of Lock Haven, Pa., who was installed as President of the AMA Woman's Auxiliary for 1972-1973, asked all members to study local needs and develop plans for meeting them. Mrs. Willard C. Scrivner of East St. Louis, Ill. was elected President-Elect and Mrs. Howard Liljestrand of Honolulu, Hawaii was named First Vice-President.

Mrs. Charles R. Willman, St. Joseph, our Missouri President-Elect; Mrs. Clyde V. Martin, Shawnee Mission, Kan., Editor of *Missouri Doctor's Wife;* and I attended the AMA-WA-AMA Quality of Life Conference. The emphasis was on the adolescent years and proved to be both informative and interesting.

A Missouri table, proclaimed by a large sign, was the gathering place for all Missourians at the Monday luncheon. Also, our state was represented by 15 persons at the Auxiliary breakfast for Missouri guests, Delegates and Alternates on June 19.

I was proud to represent Missouri. We have accomplished so much.

EDITORIAL

WOULD YOU?

(The following editorial was written by John H. Saffold, M.D., Immediate Past-President of the Tennessee Medical Association and was published in the Journal of the Tennessee Medical Association *in December, 1971.)*

Would you like to join a medical organization, one based on a free and absolutely representative government? One that is open to any competent and ethical physician? That is available in every state and nearly every county? That is concerned as much as its members permit in policing the ethics of medicine?

Would you?

Would you like to belong to a professional organization that is involved in attempting to bring solutions to every problem in the medical area of society, having first made sure it is a problem? An organization that gives you a floor for your opinions and representation in the development of policy from the county up to and through the states to the nation? One that studies hard and works hard to represent all segments of medicine? And still has to see to the problems and solutions of all of the people outside of medicine? And recognizes that it must do what individuals and small groups cannot do?

Would you?

Would you believe that other doctors care—and really care enough about you and your opinions and your problems and your proposals to carry the ball all the way to the national newspapers, television and even the floor of the national legislative halls? Because you don't have the time or don't take the time or just don't care?

Would you?

Do you want to belong to a professional organization that sets the standards of professional care and that now establishes the means to audit and assure the standards of medical care delivered to the American people? All of the American people? An organization that establishes and approves standards of education for M.D. degrees, standards for surgeons, internists, orthopedists and family practitioners and still protects the rights of all?

Do you?

Would you like to join a medical organization to whom the President, senators, members of Congress, governors, mayors, Jane Smith and Jimmy Jones and the editors of all newspapers come for advice and help on medical matters from a stumped toe to insurance and medical care for all people?

Would you?

Would you like to be part of a 124-year-old scientific organization that has been the greatest single impetus to scientific progress in medicine since its inception? And which today is more active in helping to discover the answers for the scientific problems of medicine and of getting it to doctors than all other organizations in the world?

Would you?

If you have never joined, you have a stake like the rest of us. Just pay the pittance of dues, roll up your sleeves and jump into the work. You, too, can be involved in the development of the next 30 years —the greatest years, potentially, in the history of this beautiful planet we have tried to destroy. And medicine will offer the greatest drama of all, and some of the most important and magnificent drama in all of human endeavor. And the AMA is the most important organization in the relation of medicine to society, government, business and all other facets of human endeavor. And the state and county societies must provide the base from which it operates and from which ideas come. We all have a stake in a great future. Where we will go we do not know. But we dare not "sulk in our tents." We must be a part of all that happens. Our strength is the greatest medical organization in the world and in the doctors that have the courage and strength and compassion to make it great for all people.

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LETTERS to the Editor

Misinterpretation Causes Consternation But (Hopefully) Will End Rumors

Joseph V. Finnegan, M.D.
Editor, Missouri Medicine
515 E. High Street
Jefferson City, Mo. 65101

Dear Doctor Finnegan:

I am writing to you as Editor of Missouri Medicine. I was very flattered that the journal would consider a news item about me important enough to publish. I think it was Irving Berlin who said he didn't care what people said about him so long as they mentioned his name. I feel very much the same way, but the article announcing my retirement from practice came as such a shock that my reaction was more of anguish than of pleasure over the publicity. Let me state clearly that I am not retired nor do I intend to retire in the near future.

I suspect the information for the article came from the newspaper that carried an account of my appointment to the Consulting Staff of the Pike County Memorial Hospital. The doctors of the staff of this hospital were kind enough to make this appointment since I spend a fair amount of time at my small place in the country near Clarksville and occasionally see a patient in consultation for them. However, any interpretation of these events as meaning I am retiring from practice in St. Louis is premature indeed. This is not the first time it has been rumored that I was retiring. Previous rumors I have taken more or less as a joke and have assumed that they have been propagated by my local competitors who are competing with me daily for hospital beds and for space on the operating schedule. These are very fine surgeons—old acquaintances and good friends of mine—but fierce competitors. However, when the official journal of my own state medical association gets into the act, it is too much. I feel as if I have been kicked right in the derriere—on the left side—where I carry my wallet. My office is a shambles, with inquiring calls from patients and doctors. My secretary is behind in her work—and more crabby than usual. I can't sleep for worrying about the rent. Things are a mess! I know you're terribly sorry about it all—and I really don't blame you or that nice girl that runs things for you in Jefferson City. I realize it is one of those things that just happens—but, why did it have to happen to me? I can think of two or three of my colleagues who are much more suitable candidates for retirement than I am.

I know you will do what you can to make amends. I'll not ask for a full page retraction with my photograph in the next issue of Missouri Medicine, nor will I ask that you mention my address, telephone number and office hours. But, please put in a little squib about the error, about my still being in good health and in business and that I consider retirement as being appropriate only for those surgeons who become rich or lose their faculties.

Also, please put the correction where it will be seen. Don't hide it away in the corner of a back page as some of the newspapers do under similar circumstances.

This incident has made me so allergic to rumors of retirement that if they continue, I may never retire out of plain cussedness.

Sincerely yours,
Eugene M. Bricker, M.D.
St. Louis, Mo.

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County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

Buchanan County Medical Society

Ewing Kauffman, owner and president of the Kansas City Royals baseball team, spoke to members of the Buchanan County Medical Society at their meeting on May 31.

The program followed a social period and dinner in the Empire Room of Hotel Robidoux.

Mr. Kauffman also is founder and head of Marion Laboratories in Kansas City. He discussed the Royals and, in particular, the Academy of Baseball, which he envisioned and established in Sarasota, Fla. He stated that he believes that the Academy will provide Kansas City with a series baseball team within the next five years.

Mr. Kauffman was introduced by Dr. Martin J. Fischer, Program Chairman.

William B. O'Connor, M.D., *Secretary*

Grand River Medical Society

The June meeting of the Grand River Medical Society and its Woman's Auxiliary was held at the Chillicothe Country Club on June 8 following a social hour and dinner.

Guests of the Society and speakers at the meeting were Sen. Ike Skelton of Lexington and the 28th District; Rep. Robert Devoy of Brookfield and the 11th District; and Mr. Royal O. Cooper of Jefferson City, Assistant Executive Secretary of the MSMA.

Frank R. Daley, M.D., *Secretary*

(Left to right) **Dr. Joseph F. Gale of Chillicothe, Dr. Erroll W. Allen of Carrollton and Sen. Ike Skelton, 28th District Senator of Lexington.**

SECOND DISTRICT

COUNCILOR
LYSLE M. BACH, M.D., HANNIBAL

Chariton-Macon-Monroe-Randolph County Medical Society

The regular dinner meeting of the Chariton-Macon-Monroe-Randolph Medical Society was held on May 11 at the Woodland Hospital Medical Library in Moberly. President F. L. Harms presided.

The program, which was arranged by Dr. D. E. Eggleston of Macon, was presented by Donald J. Joseph, M.D., Professor of Otolaryngology, University of Missouri-Columbia Medical Center.

Doctor Joseph's formal presentation was entitled "Secretory Otitis Media" and was illustrated with color slides. His program was excellent and was appreciated by all present.

Members of the Society present were Drs. F. L. Harms, Chariton County; J. E. Campbell, Gretchen D. Collins, D. E. Eggleston, Macon County; F. A. Barnett, Monroe County; Josephine D. Baker, W. D. Chute, C. C. Cohrs, P. V. Dreyer, J. W. Fleming, Jr., T. S. Fleming, L. E. Huber, G. R. Hudson, R. V. Tompson and Robert H. Young, Randolph County.

W. D. Chute, M.D., *Secretary*

SIXTH DISTRICT

COUNCILOR
WILLIAM D. BRADSHAW, M.D., CLINTON

Pettis County Medical Society

Sixty-five physicians and their wives from Pettis, Benton, Saline, Johnson, Henry, Morgan,

Eleventh District Representative Robert Devoy of Brookfield *(left)* and Mr. Ed Smith, representative of Wm. P. Poythress & Co., at the Grand River Medical Society meeting.

PETTIS COUNTY HOSTS AREA MEETING. *(Above, left to right)* **Dr. Paul R. Young, Medical Director of Continuing Medical Education, University of Missouri-Columbia; Dr. and Mrs. Albert J. Campbell, Jr., Sedalia; Mrs. Keith D. Jones, Warrensburg, President of the MSMA Woman's Auxiliary.**

(Center, top) **Dr. William D. Bradshaw, Clinton, Councilor for the MSMA Sixth District.**

(Center, bottom) **Dr. John H. Owens, Sedalia.**

(Above right) **Mrs. J. E. Block, Sedalia; Dr. and Mrs. Robert R. Lyle, Versailles; Dr. J. E. Block, President of Pettis County Medical Society.**

Lafayette and Ray counties attended a meeting of five area medical societies at the Walnut Hills Country Club in Sedalia on May 31. Members of Pettis County Medical Society served as hosts for the evening.

Dr. Jerome E. Block, President of Pettis County Medical Society, introduced the speakers, a team of three medical professors from the University of Missouri-Columbia Medical Center who spoke to the physicians in an effort to bridge the communication gap between the Medical Center and practitioners in small communities in the state.

The visiting team consisted of Dr. Paul R. Young, medical director of continuing medical education; Dr. Gordon Sharp, chief rheumatologist; and Dr. Richard Martin, chief cardiologist.

Doctor Young pointed out that the Medical Center now receives only a 50% grant from the state compared to 80% eight years ago. He said that the increasing role of the center is evident in the fact that it now trains nearly 800 students in the fields of medicine, nursing and allied subjects.

Doctor Sharp said that the arthritic center at the University of Missouri, which is about two and one-half years old, is devoted to education, research and patient care. He stated that the center is on the threshold of discovering new drugs for arthritic patients.

Doctor Martin discussed the steps the Medical Center is taking in fostering a closer relationship between physicians and their patients. He said that a device called the "centrex" system will be installed at the Center to enable a person to reach his doctor at the Center through direct dialing instead of having to go through a switchboard operator and a secretary.

The doctors discussed the population-physician ratio in the state. Doctor Block commented that while the national ratio is 179 physicians to 100,000 persons, the wide disparity in Missouri communities is evident from Jackson County's 190 physicians per 100,000 population compared to 50 physicians in smaller communities. He pointed out that Sedalia's estimated ratio is 130.

Guests at the meeting included Sixth District Councilor William D. Bradshaw and Mrs. Bradshaw; Mrs. Keith D. Jones, Warrensburg, President of the MSMA Woman's Auxiliary; and Mr. Royal O. Cooper, MSMA Assistant Executive Secretary.

EIGHTH DISTRICT

COUNCILOR
HOWARD J. McALHANY, M.D.,
SPRINGFIELD

JASPER COUNTY MEDICAL SOCIETY

Dr. F. Wendell Penee, Carthage, was installed as President of the Jasper County Medical Society at the Society's annual social meeting at Twin Hills Golf and Country Club in Joplin on May 9.

Other officers who were installed are Drs. Victor M. Carnes, President-Elect; Charles S. Davis, Vice-President; Howard H. Roberts, Secretary-Treasurer; Frank H. Birsner and Andrew J. Fritsch, Councilors; and Robert G. Powell, Censor.

Following the dinner, the doctors and their wives were entertained by the Singing Doctors of Springfield and the Greene County Medical Society.

HOWARD H. ROBERTS, *Secretary*

New Members

Keith J. Abercrombie, M.D., 6400 Prospect, Kansas City has become a member of Jackson County Medical Society. Dr. Abercrombie is a native of Kansas City, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1967. He specializes in urology.

Abdul Ahad, M.D., 3400 Frederick Ave., St. Joseph, has become a member of Buchanan County Medical Society. Dr. Ahad is a native of Montgomery, Pakistan, received his preliminary education at the Government College and his M.D. degree at Nishter Medical College in 1958. He specializes in psychiatry.

Benjamin I. Albano, M.D., 114 Mississippi Ave., Crystal City, has become a member of Jefferson County Medical Society. Dr. Albano is a native of the Philippines, received his preliminary education at the University of the Philippines and his M.D. degree at the University of the Philippines in 1964. He specializes in general surgery.

Jennifer D. Ashby, M.D., 116 South St., Excelsior Springs, has become a member of Clay County Medical Society. Dr. Ashby is a native of Southhampton, England and received her M.D. degree at St. Thomas Hospital Medical School in 1962. She specializes in dermatology.

Hubert H. Bell, M.D., 4320 Wornall Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Bell is a native of Atchison, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1962. He specializes in internal medicine and cardiovascular diseases.

David P. Bhend, M.D., Medical Arts Bldg., Joplin, has become a member of Jasper County Medical Society. Dr. Bhend is a native of Nevada, Iowa, received his preliminary education at Grinnell College and his M.D. degree at Washington University in 1967. He specializes in psychiatry.

Ernest A. Cattaneo, M.D., 2929 Baltimore, Kansas City, has become a member of Jackson County Medical Society. Dr. Cattaneo is a native of Pittsburg, Kan., received his preliminary education at Kansas State College and his M.D. degree at the University of Kansas in 1965. He specializes in internal medicine.

Charles E. Carnahan, M.D., 113 W. Broadway, Columbia, has become a member of Boone County Medical Society. Dr. Carnahan is a native of Poplar Bluff, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1966. He specializes in pediatrics.

Hirendra Chakrobortty, M.D., 3654 S. Grand, St. Louis, has become a member of St. Louis County Medical Society. Dr. Chakrobortty is a native of Calcutta, India, received his preliminary education at Mitra Institution and his M.D. degree at R. G. Kar Medical College in 1959. He specializes in urology.

Kap Eun Chung, M.D., 3015 N. Ballas Rd., St. Louis, has become a member of St. Louis County Medical Society. Dr. Chung is a native of Seoul, Korea, received his preliminary education at Yon-Sei College and his M.D. degree at Yon-Sei University in 1962. He specializes in surgery.

C. Terrence Dolan, M.D., 5140 N.E. Antioch Rd., Kansas City, has become a member of Clay County Medical Society. Dr. Dolan is a native of Kansas City, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at Creighton University in 1962. He specializes in pathology.

Virgilio P. Dumadag, M.D., 3015 N. Ballas Rd., St. Louis, has become a member of St. Louis County Medical Society. Dr. Dumadag is a native of the Philippines, received his preliminary education at Southwestern University and his M.D. degree at Far Eastern University in 1961. He specializes in pathology.

William E. Feist, M.D., 4320 Wornall Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Feist is a native of Topeka, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1966. He specializes in internal medicine.

Charles K. Fischer, M.D., 4355 Maryland, St. Louis, has become a member of St. Louis Medical Society. Dr. Fischer is a native of Evansville, Ind., received his preliminary education at DePauw University and his M.D. degree at Emory University in 1966. He specializes in ophthalmology.

Joseph A. Gardner, M.D., 3209 McClelland Blvd., Joplin, has become a member of Jasper County Medical Society. Dr. Gardner is a native of Kansas City, received his preliminary education at Central College and his M.D. degree at the University of Missouri in 1964. He specializes in obstetrics and gynecology.

B. S. N. Gupta, M.D., 600 E. 22nd, Kansas City, has become a member of Jackson County Medical Society. Dr. Gupta is a native of Badauana Halli, India, received his preliminary education at University Medical School and his M.D. degree at Kasturba Medical College in 1960. He specializes in psychiatry.

Thomas R. Hamilton, M.D., St. Louis V.A. Hospital, St. Louis, has become a member of St. Louis Medical Society. Dr. Hamilton is a native of Kansas City, received his preliminary education at the University of Missouri and his M.D. degree at the University of Kansas in 1935. He specializes in pathology.

Avivi Heiman, M.D., 1125 Graham Rd., Florissant, has become a member of St. Louis County Medical Society. Dr. Heiman is a native of Jerusalem, Israel, received his preliminary education at Nave Zedek Public School and his M.D. degree at Haddassa Medical School in 1960. He specializes in otolaryngology.

John P. Hickcox, M.D., 1504 E. Broadway, Columbia, has become a member of Boone County Medical Society. Dr. Hickcox is a native of California, Mo., received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1967. He specializes in orthopedic surgery.

Harry G. Hightower, M.D., 111 S. Meramec, Clayton, has become a member of St. Louis County Medical Society. Dr. Hightower is a native of Oklahoma City, Okla., received his preliminary education at the University of Oklahoma and his M.D. degree at Oklahoma University Medical School in 1948. He specializes in psychiatry.

Md. Nasrul Huq, M.D., 212 E. Monroe, Mexico, has become a member of Audrain County Medical Society. Dr. Huq is a native of Bangla Desh, received his preliminary education at Jagannath College and his M.D. degree at Chittagong Medical College in 1963. He specializes in ophthalmology.

Yasuo Ishida, M.D., 1310 S. Grand, St. Louis, has become a member of St. Louis Medical Society. Dr. Ishida is a native of Tokyo, Japan, received his preliminary education in Washington University and his M.D. degree at St. Louis University in 1967. He specializes in obstetrics and gynecology.

Raymond C. Jablonski, M.D., 1325 S. Grand, St. Louis, has become a member of St. Louis Medical Society. Dr. Jablonski is a native of Cleveland, Ohio, received his preliminary education at Western Reserve University and his M.D. degree at St. Louis University in 1965. He specializes in radiology.

Iraj Jahanian, M.D., 2601 Whittier, St. Louis, has become a member of St. Louis Medical Society. Dr. Jahanian is a native of Teheran, Iran and received his M.D. degree at Teheran University in 1962. He specializes in pathology.

H. P. Jayanandaiah, M.D., 711 Grand Ave., Hannibal, has become a member of Marion-Ralls-Shelby County Medical Society. Dr. Jayanandaiah is a native of Ramagiri, India, received his preliminary education at Davanagere City College and at the Medical College, Mysore, India, in 1955. He specializes in internal medicine.

Juan Kang, M.D., 6150 Oakland, St. Louis, has become a member of St. Louis Medical Society. Dr. Kang is a native of Korea, received his preliminary education at Kyong Puk National University and his M.D. degree at Kyong Puk National University in 1959. He specializes in pathology.

Ming-Shian Kao, M.D., 4911 Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Kao is a native of Taipei, Taiwan, received his preliminary education at National Taiwan University and his M.D. degree at National Taiwan University in 1961. He specializes in obstetrics and gynecology.

Philip J. LeFevre, M.D., 1636 S. Glenstone, Springfield, has become a member of Greene County Medical Society. Dr. LeFevre is a native of South Bend, Ind., received his preliminary education at St. Mary's College and his M.D. degree at St. Louis University in 1966. He specializes in psychiatry.

Robert D. Lins, M.D., 301 Manchester Rd., Manchester, has become a member of St. Louis County Medical Society. Dr. Lins is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at the University of Missouri in 1969. He specializes in pediatrics.

Consolacion P. Millangue, M.D., 3015 N. Ballas Rd., St. Louis, has become a member of St. Louis County Medical Society. Dr. Millangue is a native of Manila, Philippines, received her preliminary education at the University of the East and her M.D. degree at Far Eastern University in 1965. She specializes in internal medicine.

Rafael M. Millangue, M.D., 2601 N. Whittier, St. Louis, has become a member of St. Louis County Medical Society. Dr. Millangue is a native of Iloilo, Philippines, and received his M.D. degree at Manila Central University in 1964. He specializes in general surgery.

Robert B. Nolan, M.D., 10236 Bunker Ridge Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Nolan is a native of Omaha, Neb., received his preliminary education at the University of Minnesota and his M.D. degree at Creighton University in 1955. He specializes in pediatrics.

James L. Ottolini, M.D., 11745 Olive Blvd., Creve Coeur, has become a member of St. Louis County Medical Society. Dr. Ottolini is a native of Herrin, Ill., received his preliminary education at Southern Illinois University and his M.D. degree at St. Louis University in 1965. He specializes in obstetrics and gynecology.

Antonio G. Pangilinan, M.D., 3354 N. Cramer, Milwaukee, Wisc., has become a member of St. Louis Medical Society. Dr. Pangilinan is a native of the Philippines, received his preliminary education at the University of Santo Tomas and his M.D. degree at the University of Santo Tomas in 1964. He specializes in general surgery.

Harold J. Pedersen, M.D., 110 Northland Medical Bldg., St. Louis, has become a member of St. Louis Medical Society. Dr. Pedersen is a native of New York, N.Y., received his preliminary education at Drew University and his M.D. degree at Tufts University in 1967. He specializes in ophthalmology.

Carlos A. Pizzimbono, M.D., 601 S. Brentwood, St. Louis, has become a member of St. Louis Medical Society. Dr. Pizzimbono is a native of Buenos Aires, Argentina, received his preliminary education at the University of Buenos Aires and his M.D. degree at Buenos Aires Medical School in 1962. He specializes in general surgery.

Faustino V. Pugeda, M.D., 1225 Graham Rd., Florissant, has become a member of St. Louis County Medical Society. Dr. Pugeda is a native of the Philippines, received his preliminary education at the University of Santo Tomas and his M.D. degree at the University of Santo Tomas in 1963. He specializes in general surgery.

Diane Rankin, M.D., 1221 S. Grand, St. Louis, has become a member of St. Louis Medical Society. Dr. Rankin is a native of Houston, Tex., received her preliminary education at the University of Colorado and her M.D. degree at the University of Colorado in 1968. She specializes in psychiatry.

Amin A. Rofail, M.D., 2929 Baltimore, Kansas City, has become a member of Jackson County Medical Society. Dr. Rofail is a native of Gerga, Egypt, received his preliminary education at the Faculty of Science and his M.D. degree at the Faculty of Medicine in 1955. He specializes in anesthesiology.

William A. Reed, M.D., 4320 Wornall Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Reed is a native of Kokomo, Ind., received his preliminary education at Indiana University and his M.D. degree at Indiana University in 1954. He specializes in thoracic surgery.

Robert R. Robinson, M.D., 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Robinson is a native of Hallsville, received his preliminary education at the University of Missouri and his M.D. degree at Washington University in 1938. He specializes in plastic and reconstructive surgery.

Paul E. Sauer, M.D., Professional Bldg., Springfield, has become a member of Greene County Medical Society. Dr. Sauer is a native of Reading, Pa., received his preliminary education at Southern State College and his M.D. degree at the University of Arkansas in 1962. He specializes in thoracic and cardiovascular surgery.

Jacques Sauvage, M.D., 4911 Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Sauvage is a native of

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Liege, Belgium, received his preliminary education at Royal Athenee and his M.D. degree at the University of Liege in 1957. He specializes in obstetrics and gynecology.

Gerald L. Shaikun, M.D., 4511 Forest Park Blvd., St. Louis, has become a member of St. Louis County Medical Society. Dr. Shaikun is a native of Louisville, Ky., received his preliminary education at the University of Kentucky and his M.D. degree at the University of Chicago in 1964. He specializes in radiology.

Lyle P. Siegel, M.D., 1225 Graham Rd., Florissant, has become a member of St. Louis County Medical Society. Dr. Siegel is a native of Evansville, Ind., received his preliminary education at Indiana University and his M.D. degree at Indiana University in 1961. He specializes in anesthesiology.

Gershon J. Spector, M.D., 517 S. Euclid, St. Louis, has become a member of St. Louis Medical Society. Dr. Spector is a native of Rovno, Poland, received his preliminary education at Johns Hopkins University and his M.D. degree at the University of Maryland in 1964. He specializes in otolaryngology.

Richard N. Sutton, M.D., 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Sutton is a native of Kansas City, received his preliminary education at Massachusetts Institute of Technology and his M.D. degree at the University of Pennsylvania in 1966. He specializes in radiology.

Camillus L. Witzleben, M.D., 1465 S. Grand, St. Louis, has become a member of St. Louis Medical Society. Dr. Witzleben is a native of Dickinson, N. D., received his preliminary education at the University of Notre Dame and his M.D. degree at St. Louis University in 1957. He specializes in pathology.

Bruno H. Zwerenz, M.D., 600 E. 22nd, Kansas City, has become a member of Jackson County Medical Society. Dr. Zwerenz is a native of Frankfurt, Germany, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1965. He specializes in psychiatry.

In Memoriam

Haynes, Robert C., M.D., Marshall, a graduate of the University of Louisville, 1922; member Saline County Medical Society; age, 74; died April 11, 1972.

Battersby, Richard S., M.D., Columbia, a graduate of St. Louis University, 1908; member Boone County Medical Society; age, 89; died April 27, 1972.

Bawell, Malcolm B., M.D., St. Louis, a graduate of St. Louis University, 1944; member St. Louis Medical Society; age, 54; died April 28, 1972.

Millikin, Lester A., M.D., St. Louis, a graduate of St. Louis University, 1910; member St. Louis Medical Society; age, 83; died April 28, 1972.

Chamberlain, Gilbert L., M.D., Boonville, a graduate of Washington University, 1922; member Cooper County Medical Society; age, 74; died May 3, 1972.

Scott, Wendell G., M.D., St. Louis, a graduate of Washington University, 1932; member St. Louis Medical Society; age, 66; died May 4, 1972.

Coldwater, Kenneth B., M.D., St. Louis, a graduate of St. Louis University, 1938; member St. Louis County Medical Society; age, 66; died May 6, 1972.

Crews, Robert N., M.D., Fulton, a graduate of Barnes Medical College, 1896; member Callaway County Medical Society; age, 100; died May 24, 1972.

Coughlin, Bertrand D., M.D., St. Louis, a graduate of St. Louis University, 1931; member St. Louis Medical Society; age, 66; died June 6, 1972.

Laney, Ronald L., M.D., Carlsbad, Calif., a graduate of Ensworth-Center, 1906; member Jasper County Medical Society; age, 90; died June 14, 1972.

Grueb, Paul M., M.D., St. Louis, a graduate of St. Louis University, 1921; member St. Louis Medical Society; age, 79; died June 15, 1972.

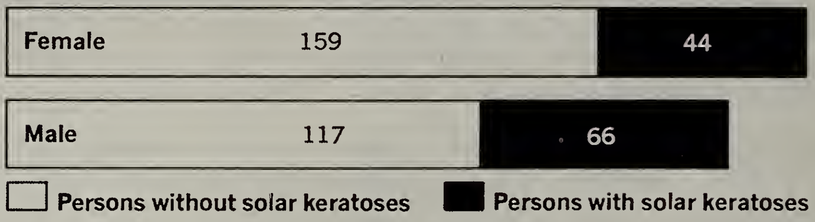
Davis, Robert C., M.D., Kansas City, a graduate of the University of Kansas, 1916; member Jackson County Medical Society; age, 80; died June 22, 1972.

What it means to live and work i Tipton County, Tennessee

Persons who are white and over 40 have one chance in four of having solar keratoses... which may be premalignant

An epidemiologic study* conducted in Tipton County, Tennessee, revealed that 28.5% of white persons over 40 had solar keratoses; most had multiple lesions. Cluster sampling projected an estimated prevalence of 32.5% for white males and 19.5% for white females.

Though this is an unusually high percentage of affected persons, these lesions can occur in any white population, wherever people work or play out of doors.


Prevalence of solar keratoses in white persons over 40 in Tipton County, Tennessee

*Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey.

Slar, actinic, senile keratoses

Clled by many names, the typical lesion is flat oslightly elevated, brownish or reddish in cor, papular, dry, adherent, rough, sharply dfined; usually multiple lesions, chiefly on eposed portions of the skin.

equence/selectivity of response

Eythema in areas of lesions may begin after sveral days of therapy; height of reaction (nly in affected areas)* usually occurs within to weeks, declining after discontinuation of terapy. Since this response is so predictable, lsions that do not respond should be biopsied t rule out the presence of a frank neoplasm.

osmetic results

osmetic results are highly favorable. Inci-ence of scarring is low—important with multi-e facial lesions. Efudex should be applied ith care near the eyes, nose and mouth.

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Before prescribing, please consult complete product information, a summary of which follows:
Indications: Multiple actinic or solar keratoses.
Contraindications: Patients with known hypersensitivity to any of its components.
Warnings: If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.
Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.
Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.
Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.
How Supplied: Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)aminomethane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.
Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).

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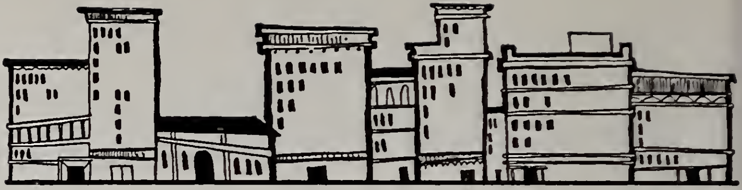
From the Medical Schools



ST. LOUIS UNIVERSITY

A total of 115 new physicians received doctor of medicine degrees from the St. Louis University School of Medicine on May 30. Thirty-eight of the graduates remained in the St. Louis area for internships and residencies and 26 stayed in St. Louis to take training at the St. Louis University Group of Hospitals.

Commencement exercises opened with invocation by *Rev. Edward J. Drummond, S.J.*, vice-president for the Medical Center. *Dr. Robert H. Felix*, dean of the University's School of Medicine, led the graduates in the Hippocratic oath. *Dr. William H. Danforth*, Chancellor of Washington University, delivered the commencement address titled "Physicians in American Society."

Dr. John R. Stanford, president of the senior class, made several surprise announcements before the graduates and their families at the commencement exercises held in Powell Symphony Hall. A portrait of Dean Felix painted by Gilbert Early of Washington University was presented to the School of Medicine as a gift of the senior class. Doctor Stanford said the class felt honored to present the portrait to the School, recalling that all the physicians had spent their four years under the deanship of Dr. Felix.

Dr. Robert E. Olson, professor and chairman of the Department of Biochemistry, was presented with a plaque from the class as the outstanding teacher for the first two years of study while *Dr. Thomas F. Frawley*, professor and chairman of the Department of Internal Medicine, was named as the outstanding teacher for the second two years (junior and senior) of study.

A portrait of Dr. Robert H. Felix, a gift from the graduating physicians to the St. Louis University School of Medicine, was unveiled at commencement exercises. *(Left to right)* Daniel L. Schlafly, chairman, Board of Trustees; Dr. William H. Danforth, chancellor of Washington University; Dean Felix; Rev. Paul C. Reinert, S.J., University president; and Rev. Edward J. Drummond, S.J., vice-president for the Medical Center.

The recipient of the 1972 Missouri State Medical Association Honors Graduate Award and $100 U.S. Savings Bond was Richard Allen Landy.

Dr. Harry W. Schoenberg has been named professor of urology and director of the Section of Urology in the Department of Surgery. His appointment becomes effective July 1. He has been professor of urology at the University of Pennsylvania School of Medicine since 1969 and chief of the Division of Urology at Children's Hospital of Philadelphia since 1970.

Five medical faculty members have been promoted from associate to full professors. They are *Drs. Ralph L. Biddy* who joined the Department of Psychiatry as an instructor in 1963; *Rodney M. Coe* who joined the Department of Community Medicine in 1970; *Robert E. Olson* who holds the primary rank of professor of biochemistry and associate professor of internal medicine; *Camillus L. Witzleben* who joined the Department of Pathology as an assistant professor in 1966; and *Paul A. Young* who has served as acting chairman of the Department of Anatomy since 1969. Those who have been advanced to the rank of clinical professors are *Drs. Matthias H. Backer, Jr.*, who joined the School of Medicine faculty as an instructor in gynecology and obstetrics in 1954; *Charles R. Doyle* who joined the medical faculty as an instructor in surgery in 1946; and *Leo V. Mulligan* who joined the medical faculty as instructor in surgery in 1942.

UNIVERSITY OF MISSOURI-COLUMBIA

Jean Edwards Holt of Columbia, formerly of Raytown, received the Missouri State Medical Association award to the outstanding graduating senior in precommencement activities of the School of Medicine on May 16. She and *Charles Kent Osborne* of Webster Groves were graduated with honors at the UMC commencement.

Ninety-eight new physicians who received the

M.D. degree from the University of Missouri-Columbia School of Medicine in June began their internship training in hospitals across the nation on July 1.

The 1972 Missouri graduates showed a tendency to pursue their internships in major teaching hospitals or university medical centers. Twenty-two of the graduates remained at the University of Missouri Medical Center. Others were selected for training at Vanderbilt University in Nashville, Johns Hopkins in Baltimore, Peter Bent Brigham Hospital in Boston and medical centers at the universities of Colorado, Florida, Iowa, Illinois, Indiana, Washington, Minnesota, Rochester (N. Y.), Arkansas, Vermont and West Virginia.

Forty-eight percent are remaining in Missouri, however, as compared with 31% six years ago. St. Louis hospitals attracted 20 graduates, 13 going to St. John's Mercy Hospital, four to St. Louis University-affiliated hospitals, two to Jewish Hospital and one to Cardinal Glennon. St. John's is affiliated with the MU Medical Center. Three new Missouri doctors will be training at St. Luke's Hospital in Kansas City and two at Kansas City General Hospital.

A 1971 graduate of the University School of Medicine, *Dr. Carl D. Maguire,* received Outstanding Intern Award honors at the University of Wisconsin when the medical school and university hospitals held their annual recognition ceremony in Madison.

The award honors a young physician for "best epitomizing during his internship the qualities of clinical acumen, scientific curiosity and compassion for the patient."

Two faculty members in the School of Medicine were appointed to assume new responsibilities of academic departmental chairmanships on July 1. *Dean William D. Mayer* announced that *A. Sherwood Baker, M.D.,* will become chairman of Community Health and Medical Practice, and *Leslie L. Eisenbrandt, Ph.D.,* chairman of Pharmacology.

Doctor Eisenbrandt replaces *Dr. Bertis A. Westfall* who has reached retirement age. The pharmacology faculty teaches medical and nursing students as well as graduate students in the department.

Colleagues in the Department of Pharmacology and a few other close friends honored Doctor Westfall at a dinner on May 17. He had been associated with the medical school since 1934 when he was a graduate assistant in physiology.

Doctor Westfall became chairman of the joint department of physiology and pharmacology in 1953. When the medical school grew rapidly and graduate programs increased, the department was divided in 1965. Since then Doctor Westfall has been chairman of pharmacology.

UNIVERSITY OF MISSOURI-KANSAS CITY

Dr. B. L. Martz, director of the Lilly Laboratory for Clinical Research, Indianapolis, Ind., has been named to the faculty of the School of Medicine of the University of Missouri-Kansas City as a docent.

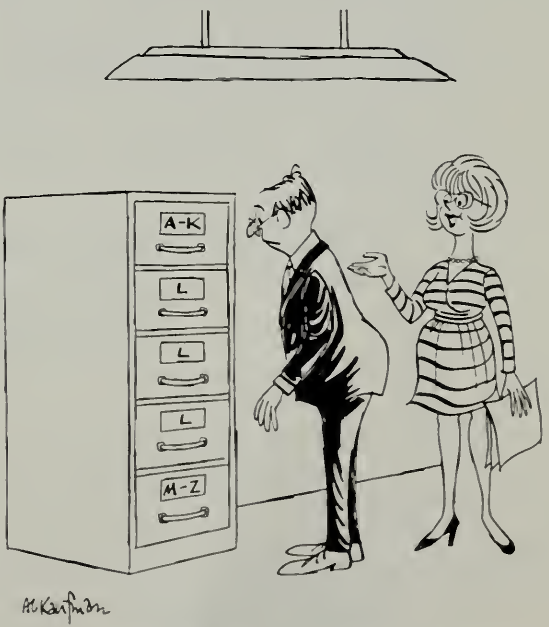
Dr. Martz

The appointment of Dr. Martz, who also has been a professor of medicine at Indiana University School of Medicine since 1967, became effective July 1.

Dr. Martz earned his medical degree from Indiana University and his bachelor of arts degree from DePauw University.

He completed his internship in 1946 at Marion County General Hospital, Ind., and from 1946 to 1948 served as a captain with the U. S. Army Medical Corps.

National and regional medical leaders examined procedures used to determine the quality of medical students' education during a symposium on evaluation on May 20. The all-day meeting, jointly sponsored by the University of Missouri-Kansas City School of Medicine and the



"Doctor, there are so many 'L's' because we get a lot of letters!"

Kansas City Southwest Clinical Society, a regional postgraduate medical education organization now in its 50th year, was held in the Children's Hospital auditorium.

A series of six speeches and three panel discussions explored the criteria and techniques applied in the health sciences to chart the effectiveness in the academic and professional preparation of medical students.

Guest program participants include Dr. John P. Hubbard, Philadelphia, Pa., president and director of the National Board of Medical Examiners; Dr. William O. Rieke, vice-chancellor for health affairs, University of Kansas Medical Center; Miss Margaret E. Mahoney, associate secretary and executive associate of the Carnegie Corporation of New York; and Dr. Douglas A. Fenderson, director of the Office of Special Programs, Bureau of Health Manpower Education, Department of Health, Education and Welfare, Bethesda, Md.

Dr. C. Brice Ratchford, president of the University of Missouri, and Dr. William D. Mayer, dean and director of the University of Missouri-Columbia, participated in the program.

WASHINGTON UNIVERSITY

Washington University School of Medicine conferred the doctor of medicine degree on 94 graduates at commencement exercises on May 26.

St. Louis area conferees were Walter F. Benoist, Edward A. Doisy III, Irl J. Don, Jeffrey A. Golden, Marc R. Hammerman, Timothy L. R. Holekamp, Joan E. Mollman, Julian C. Mosley, Claudia L. Sainz and Albert L. Van Amburg III.

Following commencement, an awards ceremony was held in Stouffer's Riverfront Inn. John A. D. Cooper, M.D., president of the Association of American Medical Colleges, spoke on "A New Bag for Medicine."

Academic honors were presented to two faculty members and 23 students. Philip H. Needleman, Ph.D., and Hyman R. Senturia, M.D., were elected "teachers of the year" by the Class of 1972 and will be appointed Alumni Teaching Scholars. Doctor Needleman also received the honor last year.

The Missouri State Medical Association's annual Honors Graduate Award was presented to Dr. Charlotte DeCroes Jacobs of Kingsport, Tenn.

Forty-one of the graduates will remain in St. Louis to enter the practice of medicine. The remainder will intern in 41 hospitals in 25 states.

Honorary doctorates were bestowed on two faculty members of Washington University School of Medicine at recent commencements. Miss Virginia Minnich, research associate professor of medicine, was presented the honorary Doctor of Science degree from William Woods College in Fulton on May 20. An honorary Doctor of Science degree was given on May 24 by Grinnell College in Ames, Ia., to Jesse L. Ternberg, M.D., professor of surgery.

Nineteen physicians who received the M.D. degree from Washington University 50 years ago were honored on May 25 at the Medical Center's annual alumni banquet.

St. Louis honorees were Drs. Bertram L. Bersche, V. R. Deakin, T. H. Hanser, Charles E. Keeble, Irl G. Tremain, and Harry W. Wiese. Also honored were Drs. William W. Baum, Salem, Ore.; Lee D. Cady, Sun City, Ariz.; Ward C. Fenton, Rocky Ford, Colo.; Armin C. Hofsommer, Menlo Park, Calif.; Walter B. Hoover, Palm Beach, Fla.; Walfred Johnson, Worcester, Mass.; Martin Lasersohn, Miami, Fla.; Kirby A. Martin, New York, N. Y.; Merlin Maynard, Saratoga, Calif.; John E. Pittman, Detroit, Mich.; Justus B. Rice, Clearwater, Fla.; Paul B. Sheldon, Princeton, N. J.; and Gervais D. Smith, Bolivar, Mo.

The Washington University Medical Center Alumni Association has elected James A. Wood, M.D., Clayton, a 1949 graduate of the School of Medicine, as president-elect. James M. Stokes, M.D. of St. Louis (1948) is president of the 7,000-member association composed of Medical School graduates and doctors who trained in the Medical Center.

Others elected were as follows: vice-president, Donald H. Finger, M.D. (1950); secretary-treasurer, Richard D. Aach, M.D. (1959) and William J. Phillips, M.D. (1963), representative to the University's Alumni Board of Governors.

New Executive Council members are Drs. Carl E. Lischer (1937), Alan S. Holtz (1951), Robert G. Scheibe (1964), Roger L. Mell (1965) and Gordon Newton, former house officer. All are from St. Louis.

Newly-elected members-at-large are Drs. Parker R. Beamer (1943), Oak Park, Ill.; James T. Brown (1948), Springfield; Nicholas T. Kouchoukos (1961), Birmingham, Ala.; Edward C. Boedeker (1968), Newtonville, Mass.; and Harry D. McGee, former house officer, Pocatello, Idaho.

The Council Reports

(Continued from page 658)

ernment. Other health organizations are encouraged to comment.

Dr. Hansbrough reported that Lilbourn, a community of less than 1,000 population in his district, is served by one D.O. and has applied for a federal HMO. It was approved by the Bootheel Comprehensive Health Planning Agency by a vote of 6-4 with some abstaining. He stated that he understands that this did not receive later approval. It has a budget of $373,320. No physician was written into the budget. He stated that he is under the impression that this was not community-oriented, but that it came down from the federal government that this is a good place to try one of these.

Dr. Hansbrough expressed concern that people in rural areas should be educated to the fact that with today's modes of transportation, one does not necessarily have to have a physician in town as long as there is one within a reasonable distance. He indicated that he felt transportation might be the problem rather than physician location.

Dr. Hansbrough indicated that he had sent 51 Medicaid case reports from his clinic to the Health Care Foundation for review. The Fifth Region of the HCF review them and they received 100% approval. He stated that he hopes the HCF will transmit this information to the Division of Welfare. He said that he is concerned over the fact that 35% of the cases have been in favor of the physician and 65% in favor of the carrier.

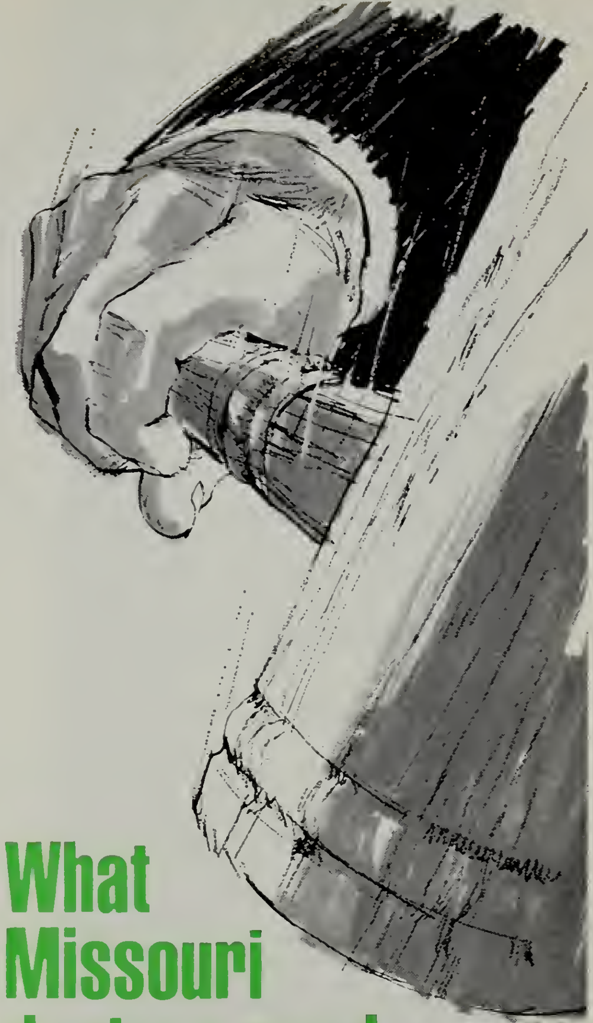
Dr. Hansbrough cited a case of a physician in his area whose last check from Medicaid was in the amount of $1.90. He contended that it would be cheaper to treat the patient at no charge than to fill out the Medicaid forms.

Dr. Hansbrough stated that they do have some terribly strong reactions toward the Constitution and Bylaws change regarding referendum that will be voted on at the next meeting. He indicated that if the metropolitan areas would get together, they would be able to call for a statewide referendum. Dr. Hetlage stated that St. Louis County Medical Society is worried about it, also.

Dr. Hansbrough reported that there is a planned parenthood clinic operating out of the Butler County Health Department. It is being run by one of the local GYN's, Dr. Carlson. He indicated that they feel it is a problem, and the physicians are trying to help in the situation. He stated that it is costing them $67 per patient. They will not do therapy there. The doctors feel that there is a certain number of people who can be reached through this clinic who will not come to the physician's office or who cannot get funding anywhere else. He stated that Dr. Carlson is running for the County Health Board. If elected, he will be on the decision-making end of the Board. Dr. Hansbrough reiterated the feeling that physicians must become involved in these planned parenthood clinics.

Dr. Hansbrough indicated to the Council that he feels it should go on record, following all of the other groups with the exception of the TB Society, as condemning the use of the portable X-ray unit.

Speaking to Dr. Bradshaw's problem regarding M.D.s and D.O.s, Dr. Hansbrough stated that he felt that the group needs a very strong physician. If they had one, he could see no reason why this group could not be composed



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of M.D.s and D.O.s. He said that you must get the right, strong personality, and he will update the group.

Regarding the possible hospital review by the HCF, he stated that the JCAH has a fine mechanism for self-evaluation. He indicated that he felt the idea of the HCF doing hospital review is a good one, but stated that manpower will be a problem.

This concluded the Councilor District Reports.

The Chairman pointed out that the following items were brought out in the Councilors' report and would now be further discussed by the Council:

1. Planned Parenthood Clinics
2. Central Clearing Agency for Health Manpower
3. Peer Review—Extending to Hospitals by HCF
4. Fees under Medicaid
5. Education concerning traveling to the doctor's office rather than trying to get a doctor in every community
6. Constitution and Bylaws Change
7. TB Unit
8. Problem of D.O.s and M.D.s on same staff
9. Legal provisions on drug abuse problem.

PLANNED PARENTHOOD

Dr. Hetlage stated that they certainly favor these clinics as they feel the clinics reach people who would otherwise not come into private offices and that this is an important medical problem. He indicated that local control is necessary and the clinics are being pressed beyond what the local doctors want them to do. He stated that they have written a letter suggesting an advisory board of four GYN's who would review the operation of the clinics.

Dr. Martin indicated that the family planning clinics in his area are through the Family Guidance Clinic under the United Fund. The family planning part is run by the GYN's. He stated that this seems to be an ideal situation and is well controlled.

Dr. Chandler indicated that he would like more background information on this, such as where does the money come from, is this a statewide agency under one central office; etc.

Dr. Cope asked that rather than go into background at this time, that this be a staff function, and at the next meeting, the Council will have a more comprehensive, factual background on family planning activities.

Dr. Bradshaw then moved that an Ad Hoc Committee of this Council be appointed to investigate and make recommendations concerning family planning activities. The motion was seconded by Dr. Hetlage and carried.

Dr. Stricker indicated that there is a planned parenthood clinic in this area and that he was approached recently, indicating that the clinic had instructions to extend their services to diagnosis and treatment of VD. He said that the doctors did not go along with any treatment except that in the physicians' offices. The clinic will pay the physician and collect from the patient on the basis of his ability to pay. The physician will be paid in full provided that the clinic makes the appointment with the doctor.

Dr. Cope stated that Staff will get all the information they can on this subject and an Ad Hoc committee will be appointed.

HEALTH MANPOWER

The next item discussed was the National Health Service Corps and the need for health manpower within the state. It was indicated that a statement of need signed by the state and local medical societies is required before a community can receive a physician through the National Health Service Corps. It was suggested that, perhaps, it would be well if there were a central clearing agency to help in the process of placement of physicians.

Dr. Domke pointed out that approximately a year and a half ago, the Division of Health, in cooperation with MSMA and MAOPS, set up a Physician Placement Coordinating Committee. This committee is in the process of obtaining physician distribution data from the State Board of Registration for the Healing Arts. Within a few weeks, it should have up-to-date information on physician distribution in the state.

Dr. Bradshaw stated that he thought there is need for a central clearing agency. He also suggested that a system of priorities should be set up. Dr. Domke pointed out that perhaps the data received by the Physician Placement Coordinating Committee can produce information that will help in the development of guidelines.

Dr. Bradshaw moved that the Physician Placement Coordinating Committee accumulate data and make it available to the Council and that the Council take positive steps toward developing a criterion for priority systems of physician placement in Missouri. The motion was seconded and carried.

TOTAL HOSPITAL REVIEW

Dr. Bradshaw expressed concern over the fact that small hospitals with small staffs are probably incapable of effective peer review. He indicated that many Missouri hospitals need outside medical input and he would like to see the Health Care Foundation expand their activities to involve complete hospital review.

Dr. Benoit indicated that the HCF Board of Directors would meet on Sunday afternoon and he would bring this matter up at that time. Dr. Benoit stated that perhaps the Foundation could act as a back-up group to utilization review committees in hospitals. Dr. Benoit indicated that this would be on a voluntary basis. Each hospital would have to request a review. There was discussion regarding at what given intervals this review should be done if the Foundation agreed to hospital review.

Dr. Miller moved to pass the feeling of this group on to the HCF Board and await their reply. The motion was duly seconded and carried.

FEES UNDER MEDICAID

During a Councilor District report, the matter of fees under Medicaid was discussed. After discussion, it was decided that staff should get information on this subject and that this matter will be on the agenda for the next Council meeting. The Ad Hoc Committee on Negotiation of Professional Fees will look into this matter.

PUBLIC EDUCATION ON PHYSICIAN AVAILABILITY

There is a need to educate the public to the fact that it is not miles, but time that is important in obtaining medical care. It is not necessary for a community to have a physician, but only for a physician to be in the immediate vicinity.

CHANGE IN CONSTITUTION & BYLAWS REGARDING REFERENDUM

There was discussion on the change in the Constitution & Bylaws regarding referendum. It was noted that there was opposition to this. It was pointed out that if the Councilors are not in agreement with this change, they should make their opposition known to their respective delegates and their delegates can vote accordingly when this issue comes up for approval at the 1973 House of Delegates. It was agreed that this matter should be placed on the agenda for the January Council meeting.

PORTABLE X-RAY UNITS

The matter of using portable X-ray units in the detection of tuberculosis was discussed. It was agreed to refer this matter to an existing committee or commission for study and recommendations. This matter was referred to the Commission on Public Affairs.

M.D.-D.O. ASSOCIATION IN GROUP PRACTICE

There was discussion regarding problems involved in the association of M.D.s and D.O.s in partnerships. Dr. Hetlage stated that in checking the insurance problem involved in M.D.-D.O. partnerships, some insurance companies will not insure such a partnership. He said that it had been his experience in his area that when there had been cooperation between M.D.s and D.O.s, the care of patients had been upgraded. Dr. Miller indicated that the AMA had had some discussion on this subject and he thought there was some decision made at a recent meeting. Dr. Benoit indicated that he remembered that there had been a great deal of dialogue on this subject, but he did not recall that any action had been taken. Dr. Cope asked the Staff check into this and give the Council an answer.

REPORT OF WOMAN'S AUXILIARY

Mrs. Jones thanked the Council for inviting her to the meeting and said that it had been very interesting. Mrs. Jones reported that approximately 120 women had attended the Woman's Auxiliary Day at the Legislature and that seven Senators from the Public Health Committee had attended the luncheon. She stated that she hoped that the women would become better informed on politics. She reported that the Auxiliary is already planning a legislative day for next year and she hopes that it will be able to entertain all members of the Legislature and, perhaps, have the Governor address them.

Mrs. Jones reported that two regional workshops had been held in Kansas City and St. Charles and both had been well attended by the officers. She expressed the hope that more members will attend the next workshop. She also reported that the circulation manager for *Missouri Doctor's Wife* had advised her that the Auxiliary now has a master list of members and will not need to use the MSMA addressograph equipment.

Mrs. Jones reported on the Fall Conference of the Woman's Auxiliary which will be held on October 24-25 at the Ramada Inn in Columbia. This conference will be held in conjunction with the Fifth Councilor District meeting. She stated that there will be a benefit dinner for the Missouri State Medical Foundation on the first evening. On the second day, the Auxiliary plans a Health Education Day. Mrs. Jones asked for Council support by co-sponsoring this and, perhaps, an Ad Hoc committee could be appointed to assist the Auxiliary. She also in-

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dicated that the Auxiliary may need minor financial support.

Mrs. Jones thanked Dr. Gunn for sending a telegram congratulating the AMA Auxiliary on its 50th Anniversary. Mrs. Jones invited all wives attending the AMA Annual Session in San Francisco to a breakfast on June 19. Mrs. Jones introduced Mrs. Irene Miller, Legislation Chairman for the Woman's Auxiliary.

Dr. McAlhany moved acceptance of the report with commendation. Dr. Cope indicated that in accepting the report, the Council also is directing the appointment of the ad hoc committee requested by Mrs. Jones. The motion was seconded and carried.

APPOINTMENT OF COUNCIL COMMITTEE

Dr. Cope appointed Drs. Franklin, McAlhany, Hansbrough and Cooper to serve on the Council Committee on Membership Communications.

SELF-TESTING PROGRAM FOR LABORATORIES

Dr. Blaine Hibbard, Kansas City internist, reported to the Council on the recently-developed program for self-evaluation of laboratory services known as a Proficiency Evaluation Program (PEP). This is a voluntary program sponsored by the American Society of Internal Medicine and the College of American Pathologists and has been developed for the quality control of physician's office laboratories.

This program provides a confidential data to assist physicians in evaluating the performance of their own laboratories. Test materials and instructions are sent to the physician four times a year. Test results obtained by the physician's laboratory staff are sent to an impartial computer processing center. These results are compared to the performance of the participating office laboratories and reference laboratories for the same tests. A confidential report is sent to the physician. Dr. Hibbard stated that this testing program can assure the physician that what he is doing in his own laboratory is of high quality. He indicated that he felt there is a good chance that some of the third party carriers will require some measure of proficiency evaluation if they are going to pay for it.

Dr. Hibbard asked the Council's endorsement of this program and indicated that he would like to write an article recommending this type of program to appear in Missouri Medicine. Motion was made and seconded that the Council accept endorsement of this program. The motion carried.

REPORTS OF THE MEDICAL SCHOOL DEANS

Dr. William Mayer reported that on May 16, the University of Missouri School of Medicine-Columbia graduated 98 new M.D.s, the largest graduating class in its history. There will be 110 incoming students in September: 102 Missourians out of 570 Missouri applicants and eight out-of-state students out of 970 applicants. The Board of Curators recently passed a resolution indicating that it would be appropriate for the professional schools to accept approximately 10% out-of-state students in their classes.

Dr. Mayer stated that he and other members of his staff have been invited and have participated in various county medical society and district meetings and indicated that he appreciates these opportunities to become involved in organized medicine.

Dr. Noback reported that the University of Missouri-Kansas City will have 72 new students this year. He said that the initial two years has pointed out that the combined Arts and Sciences medical school program works well. The docent program also is working well. He stated that they have been working with Dr. Jack Stelmach and will have family practice preceptorships this summer.

Dr. Noback indicated that people have been impressed by the curriculum book which has been assembled.

Dr. Thoma indicated that Dr. Felix will not retire this year since his time was extended by the St. Louis University Board of Trustees.

He stated that St. Louis University graduated 117 medical students recently. For the coming September class, they have had 5,400 applicants and are accepting 154 students. He stated that the Dean of Admissions estimated that about 600 applicants with a grade point average of 3 or better cannot be accepted because of lack of space. He said this is regrettable. St. Louis University has accepted between ten to 15 disadvantaged minority students. Almost all do not meet the standards, so a bridging course has been developed for the summer to try to bring these students up to the standard.

Dr. Thoma reported that for the past year they have had a Blue Print Committee studying how to teach comprehensive ambulatory care. There will be a final report of this committee, and he indicated that he would be glad to share it with anyone interested.

Dr. Thoma reported that ground has been broken for the $15 million modernization and expansion program of the University Hospital basically for ancillary services.

It was pointed out by a Councilor that Washington University has rarely been represented at Council meetings.

MATTERS REFERRED TO THE COUNCIL BY THE 1972 HOUSE OF DELEGATES

Resolution #25—Smallpox Vaccination—Dr. Domke reported that a committee of the Division of Health is presently being formed in the field of communicable diseases. He stated that the MSMA will have representation on this committee and this particular matter will be one which the committee will discuss.

On motion of Dr. Miller, duly seconded, it was agreed that this matter be tabled until the Division of Health Committee on Communicable Diseases is formed and functioning.

Resolution #33—Pediatric Coordination Council of Missouri—The Chairman referred this resolution to the Commission on Public Affairs.

Resolution #35—Restrict Usage of Amphetamines and *Resolution #39—Foundation Bylaws to Membership*—It was reported that a pledge card regarding the amphetamines and a copy of the Constitution and Bylaws of the Health Care Foundation have been sent to the membership of MSMA.

Resolution #37—Emergency Services in Kansas City—The Chairman indicated that a copy of this resolution had been forwarded to Mr. Allen Smith. Dr. Miller indicated that the resolved portion states, "That MSMA cooperate in whatever manner is deemed advisable by our Officers and Council." He stated that the MSMA has been active in this field for several years. He suggested that all information on MSMA efforts in this field should be passed on to Mr. Smith, so that not only MSMA's efforts for the Kansas City plan, but statewide efforts regarding emergency services should be made known.

Mr. McIntyre stated that he had talked with Dr. Bowles who said that he is in the process of naming his

Ad Hoc Committees and Dr. Klippel again will be named as Chairman of the Ad Hoc Committee on Emergency Medical Services and will continue this program. He also stated that there will be a statewide meeting on emergency medical care services in Jefferson City in August. This is a federally-funded program under CHP.

Dr. McAlhany stated that the city of Springfield has appropriated $600 to make five or six tapes to help Dr. Cook work with the ambulance personnel. There is such a rapid turnover.

Dr. Thoma reported that the Bi-State RMP, acting for a separate corporation with which Drs. Klippel and Conrad are involved, has applied for a federal contract of emergency services in the metropolitan areas. He indicated that St. Louis is to be site visited in the near future to see if they will be funded.

Dr. Cope indicated that the resolution asked that the MSMA cooperate and stated that we certainly will not discontinue our efforts statewide.

Resolution #40—Failure Rate of State Board Examinations—The Chairman referred this resolution to the Commission on Continuing Education and Health Manpower.

Resolution #41 was discussed. This resolution resolved that, "The Health Care Foundation of Missouri, Inc., will not review any issue unless the parties requesting the review agree to be bound by the decision of the HCFM with the privilege of appeal." A copy of this resolution has been forwarded to the Health Care Foundation.

Dr. Miller indicated that he had received various comments on the pledge cards regarding restriction of amphetamine usage. He said that many physicians do not realize that this is a problem and cannot understand why they should be challenged. Dr. Cope indicated that he will turn this problem over to the new MSMA Public Relations Director.

REPORT OF THE AMA DELEGATE

Dr. Neilson reported to the Council on activities of the upcoming San Francisco meeting. He indicated that he will prepare a resolution regarding the death of Dr. Wendell Scott to be presented on the floor of the House. The Delegation will work for the reelection of Dr. Vernon Wilson to the Council on Medical Education. He stated that they would be ready to take part in the honor which the AMA will bestow on Dr. Durward Hall. The MSMA delegation will present two resolutions. Dr. Neilson indicated that both he and Dr. Benoit will chair reference committees.

Dr. Neilson indicated that during the last several years, there has been a change in the attitude of physicians toward the AMA and, in a sense, toward the delegates. Some physicians do not feel that their delegates truly represent them. He stated that he felt the MSMA delegation has tried to represent Missouri medicine and to take to the AMA those thoughts which the House and the Council have expressed. He said there has been an increasing cry about the lack of "grass roots" physicians' influence on "The Establishment." Dr. Neilson stated that there will be an airing of some of these problems at the San Francisco meeting. He stated that "as delegates, we need instruction from this body." The AMA House of Delegates will be confronted with serious proposals to change the rules and to make association policies and programs more responsive to the needs and demands of the grass root membership. The following items will undoubtedly receive airing at the San Francisco meeting:

The State Medical Society of Wisconsin, at the 1971

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AMA Clinical Meeting, pressed the House to order public hearings by the Council on Long Range Planning and Development so that physicians throughout the country could air criticism of AMA structure, programs and policies. Dr. Neilson indicated that he had written to members of the MSMA Council and the delegates to determine whether they wished the MSMA delegation to appear as witnesses at the hearing and what they wished to be presented.

The Harris County Medical Society at Houston, Tex., has voted to support a constitutional convention and to reshape the AMA and to rededicate it to the private practice of medicine.

The Colorado delegation to the AMA House has been directed to urge action to effect a significant revision of the internal organization structure of the AMA.

Michigan State Medical Society has adopted a resolution asking for reassessment of AMA structure, function and purpose.

Dr. Neilson stated that the AMA seemingly has been unable to do much about the increasing number of incidents in which the government has intruded further and further into the practice of medicine.

There has been an attempt in San Francisco to organize a union of Bay area physicians. The AMA has opposed unionism. Florida's House of Delegates has created a statewide "guild" similar to a union.

Maryland's House of Delegates passed a resolution establishing a commission to study collective bargaining and institution of class actions in behalf of the medical profession in the AMA.

There also is the matter of the American Hospital Association and its relationship to the AMA.

It has been prophesied that some form of national health insurance will become law by 1974.

Dr. Neilson stated that there also is the matter of a separate national House Staff organization.

The California Medical Association has expressed to their congressman and health committee leaders its strong concern over HEW's aggressive HMO spending following the CMA Council's call for a moratorium on HMO projects in the state.

The Wisconsin physicians who participated in the first pilot hearings conducted by AMA's Long Range Planning and Development Council want direct election of AMA delegates, early involvement of interns and residents on medical societies, AMA activities and placing leadership structure into the hands of young physicians. They also stressed improved AMA communications as a must. California is now polling its physicians to determine whether they wish to elect AMA delegates by popular ballot or through their district delegations.

Pennsylvania Medical Society has begun a mandatory continuing education program as of July 1.

Dr. Neilson stated that an open hearing by the Council on Long Range Planning of the AMA will be held on Saturday, June 17, and the delegation plans to prepare a ten-minute testimony summing up the thinking of the Council on the problems facing physicians and its desires in regard to changes in the AMA that will help solve these problems. Testimony can be presented on the 17th, but we need to submit a written statement immediately and then there will be our oral appearance before the Committee. Dr. Neilson stated that if we can't get this together in this short period, we can present your views in Cincinnati on November 25.

Discussion followed as to how to direct the MSMA delegation in regard to the hearing by the Council on Long Range Planning:

It was suggested that possibly the AMA Speakers' Bureau should conduct a state-to-state campaign to talk to the physicians directly.

Regarding the subject of a negotiating mechanism, it was brought out that the MSMA has told Dr. Peterson to proceed with further development.

On National Health Insurance, the MSMA should let the legislators know that the AMA wants to be consulted.

Dr. Benoit stated that we are not forced to do this in two weeks. He suggested that, possibly, the Councilors would like to think about this during the next several months and come to the Council meeting in September with a definite statement to be made at the Clinical Session in November.

Dr. Peterson indicated that we want to be sure that we don't condemn the AMA for what they are doing unless we can come up with a better way.

Dr. Neilson stated that he felt that many of the things the AMA is being asked to do they are already doing.

Dr. Hetlage stated that he felt the AMA could not be changed effectively without changing the MSMA and the local medical societies.

Dr. Cope then suggested that Dr. Neilson's report be reproduced and given to the Council and that the Council make positive recommendations for the delegates at the Cincinnati meeting.

Dr. McAlhany stated that he felt some recommendations should be made now.

Dr. Bradshaw suggested that a positive recommendation be made that we need more factual information about what is presently going on by word of mouth. He stated that he did not know enough about it to give definite recommendations.

Dr. Cope asked Drs. McAlhany, Hansbrough and Bradshaw to formulate a statement or recommendations for the AMA delegation and to have it ready for action of the Council the following morning.

Dr. Miller moved that the matter regarding recommendations to the Missouri delegation concerning AMA organization be tabled until the following morning. The motion was seconded and passed.

APPOINTMENT OF COMMITTEE ON RAPID PRESS RELEASES

Dr. Cope pointed out that there is a need to make knowledgeable and effective responses to items appearing in the various news media. He suggested the following way to do this: (1) A committee of one doctor be appointed. This committee could be composed of the President; (2) Staff will compose answers to various items and then seek approval of the committee to release the answer as quickly as possible. Input would come from all over the state.

Dr. Hetlage moved that a committee composed of the President be appointed to work with the staff in developing responses to items appearing in the various news media. The motion was duly seconded and carried.

REPORT OF THE COMMISSION ON CONTINUING EDUCATION AND HEALTH MANPOWER

A meeting of the Commission on Continuing Education and Health Manpower and its ad hoc committees met on May 14. Mr. Fox indicated that the Ad Hoc Committee—115th Annual Session had made an evaluation of the 1972 Scientific Sessions. This is the first year that a number of specialty groups has sponsored scientific sessions as a part of the program. There were 17 sessions sponsored by medical specialists and three general sessions. All reported favorably on the new format. An inquiry has been sent to each specialty and all replies to date indicate that they were satisfied with the format. If invited, they will be glad to sponsor a session next year. The Committee also indicated that this same format will be used for planning the 115th Annual Session.

Dr. McAlhany moved acceptance of this portion of the report. The motion was duly seconded and carried.

Mr. Fox stated that if the Council approves, perhaps the 1974 meeting in Kansas City could be moved to the Crown Center. He indicated that at present, the only available date at the Crown Center is the weekend of April 4-7, 1974, and he would like to hold these dates. Dr. Miller inquired as to whether or not the possibility of using the Alameda Plaza in Kansas City had been investigated. Dr. Cope requested an investigation of the Alameda Plaza.

Dr. McAlhany moved that the dates of April 4-7, 1974, be held at the Crown Center. The motion was duly seconded and carried.

It also was moved that an investigation of the Alameda Plaza be made. This motion was duly seconded and carried.

The report of the Ad Hoc Committee on Health Manpower was presented. Mr. Fox reported that there had been negotiations with the nursing profession for guidelines to be drafted covering four specific patient care services identified by the nursing profession as practices of medicine but actually performed in certain small hospitals by the nurses. Mr. Fox indicated that Dr. Worley, the chairman of the Ad Hoc Committee, is planning another meeting with the nurses to resolve differences. The results will be reported to the Council at its September meeting.

Mr. Fox reported that the Health Careers Recruitment Program which was developed by the Missouri Hospital Association, funded by RMP and endorsed by MSMA has been resumed. This program is an educational effort to explain to student assemblies the opportunities in health careers. The Hospital Association will be invited to again cosponsor with the MSMA an exhibit booth on Health Careers at the 115th Annual Session in 1973.

It was moved and seconded to approve this portion of the report. The motion carried.

Dr. Paul Young, chairman, gave the report of the Ad Hoc Committee on Continuing Medical Education. He reported that the MECO program will be continued this summer and that there are 12 hospitals in the program involving 19 students.

Dr. Young then reported on the MSMA Continuing Medical Education Program, Phase I and Phase II. Dr. Young indicated that a state level CME Conference is scheduled for June 24 and 25. He indicated that the CME Committee, the CME Councilor District Directors, MSMA Council and Officers and other interested persons will be invited to attend. He also stated that the following national authorities on CME will address this conference: Mr. LeRoy Erickson, Director, Educational Activities, Pennsylvania Medical Society; Robert Evans, M.D., Dean, Rockford School of Medicine, Rockford, Illinois and Sigurd Sivertson, M.D., Assistant Dean, Continuing Education, University of Wisconsin Medical School, Madison, Wisconsin. Dr. Young indicated that

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the budget for this meeting is $825 and that he would like Council approval for the expenditure of this money.

Dr. Franklin moved the acceptance of Dr. Young's report and in so doing, authorized the expenditure of funds. The motion was duly seconded and carried.

Dr. Cope noted the absence of Mrs. Bertha Thomas who had requested to be excused from Council meetings. He stated that he will write a letter thanking her for her years of service to the Council.

FUND DRIVE FOR CANCER RESEARCH CENTER

Dr. John S. Spratt, Chief Surgeon for the Ellis Fischel State Cancer Hospital and State Coordinator for Cancer Control, presented a brief history and background information on the Cancer Research Center. Dr. Spratt stated that the Cancer Research Center was founded in 1963 as a nonprofit corporation. He stated that when CRC was founded in 1963, the Columbia Chamber of Commerce raised $60,000 seed money for initial operation costs. At present, one building has been constructed and includes a small cancer detection clinic. CRC presently has an arrangement with the Medical School whereby students and residents rotate through the various programs. Currently, CRC has an annual budget of approximately $1,000,000. The Cancer Research Center has entered into a contract with the Missouri Division of Health for the development of a State Tumor Registry.

Dr. Spratt indicated that there is a drive under way to raise $3.7 million for the Cancer Research Center. Approximately $2.7 million will be used for construction of needed facilities and $1 million will be used to develop new programs. Dr. Spratt extended an invitation to all present to visit the Cancer Research Center.

CANCER DETECTION CLINIC

Dr. James N. Hueser, Director of the Cancer Detection Clinic, presented information on the Cancer Detection Clinic, which is part of the Cancer Research Center. This Clinic was formed to try to develop a plan for the early detection of cancer. At present, the Clinic is being staffed by himself and a practicing gynecologist in Columbia. It is now operated on a fee-for-service basis, but Dr. Hueser indicated that there is a proposal before the National Cancer Institute to fund an expansion program. He indicated that in four months of operation, approximately 100 patients have been examined. Dr. Hueser stated that they are trying to expand to the point where approximately 40 to 50 persons per day could be examined at the Clinic. Dr. Hueser explained the various procedures that are used in examinations at the clinic.

"I didn't say you are a hypochondriac. I merely said that not many people have monogrammed pills of their very own."

During discussion, it was pointed out that only a small portion of the money collected by the Cancer Society is used in Missouri. Dr. Spratt indicated that he, in his capacity as State Coordinator for Cancer Control, will look into various sources of funding and then be able to make recommendations for future funding.

Dr. Chandler asked Dr. Spratt if he thinks the Council could be helpful. Dr. Spratt indicated that they are trying to develop a cancer control plan for the state of Missouri and that he will need input from and the endorsement of the Council if he is to get appropriate funding for this plan.

Dr. Cope stated that there are three things that need to be considered in regard to the above reports:

1. Do you wish to accept the report of Dr. Spratt on the fund drive for the Cancer Research Center?

Dr. Chandler moved acceptance of this report. His motion was duly seconded and adopted.

2. Do you wish to accept the report of Dr. Hueser for the Cancer Detection Clinic?

Dr. Chandler moved acceptance of the report, the motion was duly seconded and adopted.

Dr. Cope asked the Council what they would like to do in regard to further liaison with Dr. Spratt concerning the use of Cancer Society funds. Dr. Cope then indicated that Dr. Spratt will be asked to attend a Council meeting at a future date and this matter will appear on the agenda at that time.

JOINT COMMISSION ON ACCREDITATION OF HOSPITALS WORKSHOPS

Mr. Fox indicated that the JCAH had recently revised its standards and is offering workshops to Hospital Administrators and others in order to familarize them with the new standards. He stated that in Missouri, this workshop will be jointly sponsored by the Missouri Hospital Association and MSMA. The Hospital Association has sent out a survey to determine interest in attending such a program. To date, 139 persons have indicated interest in attending a workshop of this type. When the MSMA and the Hospital Association tried to set dates for this workshop, it was found that there were no open dates that could be met by both Associations and the JCAH. It was suggested that this could be combined with the "Mini-Estes" Conference, which will be held on March 1, and that the JCAH Workshop could be held on March 2 and 3. The JCAH charges $50 per person for materials and faculty travel and an additional $30 for administrative costs. Mr. Fox indicated that the Osteopathic Association will not be one of the sponsors of this workshop, but that the workshop probably will include both M.D.s and D.O.s since a number of hospitals in the state have both M.D.s and D.O.s on staff.

The motion was made, seconded and adopted that the council approve the holding of the JCAH Workshop in conjunction with the Large and Small Hospitals Conference.

REPORT OF THE JOINT COMMISSION ON MEDICAL-LEGAL AFFAIRS

The Medical-Legal Committees of MSMA, Missouri Association of Osteopathic Physicians and Surgeons and the Missouri Bar Association held a joint meeting on May 6 and made the following recommendations:

1. That the Associations represented request permission from parent organizations to receive and attempt to resolve complaints arising between physicians and attorneys in their interrelated practice that cannot be resolved at the local level.
2. That the Associations represented should continue to hold joint meetings.
3. That the committees should obtain additional information on pretrial screening panels.

Dr. Matthews requested that the report be amended to include the following recommendation:

4. That the members of the MSMA Medical-Legal Commission discuss the Good Samaritan Law with members of the Bar Association who attend these meetings and encourage them to discourage their members from advising physician clients not to act as good Samaritans because of the danger of liability.

Dr. Hetlage moved that the report be accepted as amended. The motion was duly seconded and adopted.

MSMA SPONSORSHIP OF FUTURE TOURS

Mr. Cooper informed the Council that, as of Saturday morning, 95 persons had signed for the Caribbean Cruise. He also indicated that 12 hours of scientific programs are scheduled and that these hours have been approved by the AAFP.

Mr. Cooper then indicated that the Councilors and Officers had previously received information on two different tours of Scandinavia. He requested Council action as to whether or not they wish to sponsor one of these tours.

Dr. Gunn moved that the MSMA sponsor the INTRAV tour to Scandinavia in May or June, 1973. The motion was seconded and adopted.

REPORT OF AMA DELEGATES REPORT

Following Dr. Neilson's report on Saturday, Drs. Bradshaw, Hansbrough and McAlhany were appointed to a committee to formulate a statement to be given to the AMA Delegation for use at the Annual Session in San Francisco. Drs. McAlhany and Bradshaw presented the following statement:

"The Missouri Delegation recommends that the House of Delegates sponsor a nationwide program to promote the goals and aims of the AMA. We suggest that the AMA, through the Speakers Bureau, organize a state-by-state program which will inform all physicians of the intent of organized medicine."

Dr. Hansbrough stated that he concurred with the original report as given, but that he would like to make an additional report that includes the following five items:

1. That the AMA, through the Long Range Planning Committee, look into the method of election of AMA Delegates.
2. That the AMA should consider setting up a section of hospital physicians, allowing such physicians to be either members of this group or the section in the specialty in which they practice.
3. That the AMA continue to keep an open mind on HMO's, but pointing out that the cost record so far has been poor using for example statistics from medical clinic associations.
4. That the AMA consider statements such as doctors being democratic and be willing to support legislation as desired by the people, but begging for input into such programs about which we should and do have expertise.
5. That the AMA issue no statement on unions.

Dr. Neilson stated that many of the items suggested are already being implemented and that the AMA has good consultative bodies to turn to and their information is up-to-date and first class. Dr. Peterson stated that the way in which delegates are elected is a function of the state society and not a function of the AMA.

Dr. Hetlage made the following recommendation concerning Council position on the AMA:

"That the position of our AMA delegation as instructed by this Council shall be one of change in the structure of organized medicine from the county society level to the higher echelons of the AMA, so that the structure and image of organized medicine shall be relevant to the social and economic structure of society today. That these changes be made only after reasonable and advised study of present structure and the alterations and problems involved in changing established modes of operation."

This recommendation was made in the form of a motion and passed during the summary session.

Dr. Bradshaw stated that he felt that our AMA delegation is well informed and should be able to use its own judgement in our behalf. He saw no point in giving our delegation specific instructions. Dr. Mayer stated that he felt there are no elegant solutions to these problems. He then mentioned the age factor that exists not only in the AMA, but also at the state society level, and felt that this is another problem that should be considered.

Dr. Miller moved that the Council accept the report of Dr. McAlhany as extended by Dr. Hansbrough and that this, together with the deliberations, be submitted to the AMA Delegation for appropriate use as they see fit at the Annual Session in San Francisco. Councilors should make further study of this and give specific instructions

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to the AMA Delegation in September. The motion was duly seconded and adopted.

REPORT OF THE COMMITTEE ON LEGISLATIVE AFFAIRS

Dr. Matthews reported on legislation supported by the MSMA that was passed; legislation opposed by MSMA that did not pass; and legislation that passed that was of interest, but upon which MSMA did not have a position.

Dr. Matthews stated that the passage of Concurrent Resolution #5 was of special interest. This resolution establishes a joint committee of Senate and House members to investigate the deficiencies in the federal-state medical care programs, the general costs and operations of providers of medical care and to establish viable alternatives or improvements to our present system of medical care in the state.

Dr. Matthews indicated that the Legislative Committee is planning needed legislation and hopes to have the following bills ready for early introduction next Session: 1. Legislation to provide for the establishment of ambulatory care centers; 2. Legislation to provide for immunity from liability for review physicians; 3. Legislation to provide a broad consent bill; and 4. Legislation to provide for mandatory labeling of prescriptions.

Dr. Miller stated that he would like to see changes in the Nurses Practice Act to allow for the RN-Midwife. Dr. Matthews stated that through a resolution in the MSMA House of Delegates, we could make known how physicians stand on this issue and that we should work with the Nurses Association in getting needed legislation to change their practice act.

Dr. Gunn read a letter that had been received from the Missouri Association of Nurse Anethetists. This Association is seeking approval of MSMA and other health organizations in issuing a joint statement regarding the qualifications of individuals administering anesthetics in the state of Missouri. Dr. Gunn asked that this matter be referred to the Legislative Committee for further study.

Mr. McIntyre indicated that the Governor of Missouri will probably call a special session of the Legislature in September and that legislation regarding Blue Cross and Blue Shield may come up again at that time.

It was moved that the report of the Committee on Legislative Affairs be accepted with commendation. The motion was seconded and adopted.

CONSUMER HEALTH INFORMATION PROGRAM

The Commission on Public Affairs had been asked by the Council to evaluate the Consumer Health Information Program developed by the University of Missouri, following the request of Dr. Arthur Rikli for MSMA approval. The Commission made the following recommendations regarding the CHIP Program:

1. Approve the CHIP and so notify Dr. Rikli. (To disapprove would not stop the program and would tend to represent negativism to the public.)
2. Volunteer assistance in whatever areas seems needed by the medical sector.
3. Respectfully request follow-up reports at each Council meeting by Dr. Rikli as to project developments.

The motion was made and duly seconded for acceptance of the three points. The motion carried with one dissenting vote.

APPOINTMENT OF EDITORIAL BOARD

Dr. Finnegan recommended that the following members be appointed to the Editorial Board of Missouri Medicine for 1972-1973: Drs. Robert K. Skillman, Kansas City; Wilfred E. Wooldridge, Springfield; James N. Haddock, St. Louis; William A. Leo, Kansas City; William M. Hart, Columbia; Leo T. Neu, Jr., Springfield; Richard D. Blim, Kansas City; John W. Berry, St. Louis; Charles R. Willman, St. Joseph; Thomas M. Mier, St. Louis; Bentley A. Nelson, Kansas City; Donald J. Mehan, St. Louis; John S. Spratt, Jr., Columbia; Wayne A. Simril, St. Louis; Ben H. Koon, Bolivar; Raymond A. Ritter, Jr., Cape Girardeau.

It was moved that these members be appointed to the Editorial Board for 1972-1973. The motion was seconded and carried.

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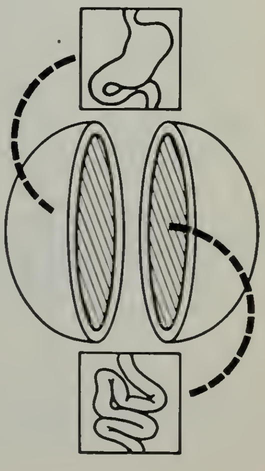

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References: 1. Roth, J. L.: *Ann. N.Y. Acad. Sci.* *150* 109, Feb. 26, 1968. **2.** Reich, N. E., and Fremont, R. E. (eds.): Chest Pain, The Macmillan Company, New York, 1961, p. 348.

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Missouri Medicine in Review

FORTY YEARS AGO

There will be no epidemic of infantile paralysis in this country this year, according to Dr. Hugh S. Cumming, Surgeon General and Director, United States Public Health Service. It was more prevalent in the United States in 1931 than in any year since the record-breaking epidemic of 1916, and one intense outbreak does not follow another within a year in the same community. It is to be remembered, however, that the disease occurs every year to some extent. It is especially to be remembered that most muscles affected tend to recover entirely if they are kept from being stretched from the start and, later after all tenderness has gone, if they receive carefully directed and graduated exercises with proper rest, but still avoiding stretching.

Approximately one fourth of the accidents injuring the eyes of children are caused by fireworks.

Dr. George Gellhorn, St. Louis, president of the American Gynecological Society, presided at the annual meeting of the organization in Quebec on May 30-June 1.

Evidence that prehistoric natives of British Columbia knew the surgical techniques of trephining was found recently when a skull bearing marks of this operation was unearthed.

TWENTY-FIVE YEARS AGO

Cyrus E. Burford, M.D., St. Louis, was elected president of the Association of Genito-Urinary Surgeons of America at the annual session in Absecon, N. J. on June 5.

E. M. Moore, Sr., M.D., Higginsville, recently was appointed physician at the Confederate Home in Higginsville.—George H. Thiele, M.D., Kansas City, was installed as president of the American Proctologic Society on June 9 in Atlantic City.—James Barrett Brown, M.D., St. Louis, has been awarded the Legion of Merit for his work as chief of plastic and maxillofacial surgery at Valley Forge General Hospital from June, 1943 to August, 1945.

The Fifth Councilor District met in Columbia on June 16 with Councilor F. J. Jolley of Mexico presiding and the Boone County Medical Society acting as host. Harold C. Lueth, M.D., Dean of the University of Nebraska Medical School and Professor of Medicine at that institution, discussed some of the problems confronting medical educators who are concerned with the problem of training doctors for rural areas. He emphasized the importance of continuing the training of doctors after they have received their M.D. degrees and pointed out ways in which this training is being carried out in some of Missouri's alert Midwestern neighboring states.

TEN YEARS AGO

C. Souter Smith, M.D., Springfield, was one of 30 alumni from seven states who received an "Alumni Citation for Useful Citizen" from the University of Chicago at ceremonies on June 9.

Certificates in recognition of 50 or more years of service on the staff of Missouri Baptist Hospital in St. Louis were presented recently to Drs. M. E. Sheets, C. E. Burford, J. C. Landree, Hudson Talbott and J. S. Sheets.

Grayson Carroll, M.D., St. Louis, was installed as president of the American Urological Association at its annual meeting.—Frank McDowell, M.D., St. Louis was recently elected president of the American Association of Plastic Surgeons.

The American College of Obstetricians and Gynecologists have elected A. N. Arneson, M.D. of St. Louis as treasurer. Section chairman for Missouri is Kenneth S. Nicolay, M.D., Kansas City, and vice-chairman is William B. See, M.D., Columbia.

Dr. M. Kenton King, Assistant Professor of Medicine and Preventive Medicine at Washington University School of Medicine, has been named Associate Dean of the Medical School to succeed Dr. Hugh Chaplin, Jr., who has been Associate Dean since 1957.

During anginal attacks, patients may suffer intense apprehension. More frequently, however, they experience a continuing sense of less severe but nonetheless disproportionate anxiety.

Reduction of such clinically significant anxiety is important, since undue emotional stress may precipitate further anginal episodes.

Adjunctive Librium (chlordiazepoxide HCl) may be especially suitable for relief of clinically significant anxiety and emotional tension in anginal patients because of its generally prompt therapeutic effectiveness and wide margin of safety. In a recent double-blind randomized study,* Librium (chlordiazepoxide HCl) was administered for relief of moderate anxiety in 20 anginal patients seen in office practice over a 20-week period. Symptoms of emotional distress related to anxiety were rated at base-line, one week, two weeks and monthly thereafter. Relief was obtained notably early in therapy. The clinical results demonstrated that Librium offers the coronary patient an antianxiety drug that, in the author's opinion, is both effective and safe. In general use, the most common side effects reported have been drowsiness, ataxia and confusion, particularly in the elderly and debilitated. (See summary of prescribing information.)

Librium (chlordiazepoxide HCl) is used concomitantly with certain specific medications of other classes of drugs, such as cardiac glycosides, diuretics and antihypertensive agents, whenever anxiety is clinically significant. The drug should be discontinued after anxiety has been reduced to appropriate levels.

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Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

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*Levine, S.: "Angina Pectoris and Emotional Overlay," Scientific Exhibit presented at the Annual Meeting of the Maine Medical Association, Kennebunkport, Me., June 13-15, 1971.

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Missouri Medicine

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MSMA NEWS ROUND-UP

Missouri Sub Task Force on Emergency Medical Service proposes statewide system

More than 400 people interested in emergency medical care - including physicians, hospital officials, nurses, ambulance operators, government representatives and consumer groups - attended the Governor's Conference on Emergency Medical Service in Jefferson City, Aug. 18-19.

James Stookey, D.O., of Kirksville, head of the Missouri Sub Task Force on Emergency Medical Service, said a proposed plan for the statewide system will be presented to the Governor's Advisory Council for Comprehensive Health Planning on Sept. 7.

The Sub Task Force recommendations include:

- Establishment of a permanent Technical Advisory Committee on Emergency Medical Services by the governor to coordinate and evaluate all emergency services in the state.
- Designation of the Missouri Division of Health as the agency which would continue implementation of emergency medical systems.
- Encouragement of area health-planning agencies to appoint special committees to plan local emergency medical programs.
- Categorization of all hospitals in the state so ambulances can take patients to the nearest hospital providing the type of service needed in each case.
- Passage of state legislation requiring high standards for ambulances and training of ambulance attendants.
- Development of a statewide two-way radio communications system between hospitals, ambulances and other emergency services.
- Designation in each area of the state a toll-free telephone number for contacting emergency medical personnel.
- Seeking adequate funding for emergency medical services.

News services aim to tell doctor's story

Two news services are being pushed by the AMA in an effort to "get the physician's position" before the public.

The AMA Radio News Service, which has been in operation for about a year, is handled through a toll-free telephone answering unit.

Weekly medical reports and featurettes of a clinical and socio-economic nature designed to be recorded by a radio station and integrated into its local newscasts can be obtained by calling 800-621-0088.

The reports are between 60 and 120 seconds in length and are changed every Friday. Special news announcements are transmitted during the week when immediacy is of prime importance.

To promote the service, AMA is sending note pads to radio stations across the country. The distinctive, spiral-shaped pads have the toll-free 800-621-0088 telephone number listed on each page.

A new service offered by the AMA Communications Division is the AMA News Features.

This service, which will be offered to daily newspapers across the country, will spotlight activities of the AMA, its constituent societies and medicine in general through stories and pictures, which will be mailed weekly.

Jack Martin, editor of AMA News Features, has requested state and county medical societies to submit possible feature ideas for the service.

State physicians gain awards

One-hundred-and-one Missouri physicians have been named recipients of the AMA's 1971 Physician's Recognition Award.

The AMA also reports that a nationwide mailing made in early August resulted in more than 3,000 physicians submitting applications for the 1972 Physician's Recognition Award. All physicians who do not hold 1970 or 1971 certificates and who completed 150 hours of acceptable continuing medical education activity are eligible to receive the 1972 award.

Survey shows Americans rate health care high

Although about all we ever hear, see or read today is that the health industry in the U.S. is unsatisfactory and not meeting the needs of the people, apparently the PEOPLE don't agree.

An informal survey conducted by LIFE magazine found that 68 per cent of the 41,000 Americans responding rated the quality of medical care they received in the past year as "good" to "excellent."

The survey shows that only one out of every 15 participants considered his medical care "poor" and only one of 20 felt that his physician is "indifferent."

Fifty-five per cent of those responding said they favor some form of federally administered national health insurance that could be handled through payroll deductions. The survey did not ask which current NHI was preferred but LIFE noted that many said they wished they had been offered the choice.

"Their demand for some kind of national health program is tempered by a severe reluctance to have big government do it all," the magazine reported.

Scientific sessions assigned

Twenty-one scientific sessions and two general sessions have been assigned dates and hours for the 115th MSMA Annual Session next spring in St. Louis.

E. D. Kinsella, M.D., Chairman of the Ad Hoc Committee-115th Annual Session, released the following breakdown of the twenty-three 90-minute programs:

General Sessions-MSMA	**2**
Internal Medicine	**5**
General Surgery	**3**
Psychiatry	**2**
Radiology	**2**
Allergy	**2**
Anesthesiology	**2**
Ophthalmology	**1**
Dermatology	**1**
Mo. Heart Association	**1**
Mo. Cancer Society	**1**
Pediatrics	**1**

Aetna agrees to alter objectionable claims practices

Aetna Life and Casualty Company has agreed to alter several claims practices and procedures that many physicians have found objectionable. The company informed the AMA that it is taking steps to prevent or minimize problems that have arisen from these practices and procedures.

The changes were outlined recently after Aetna representatives met with AMA's Council on Medical Services to discuss ways of solving an apparent lack of effective communications between the company and members of the medical profession.

Under its revised policy, Aetna will not correspond with patients on claims matters until it has first discussed individual cases with attending physicians. Previously local claims offices had contacted patients without the knowledge of their physicians.

Aetna, in the future, will send attending physicians copies of any correspondence sent to policyholders if questions are not resolved in prior discussions with physicians.

The company also will refine and modify the wording of all its present letters to claimants "to minimize possible misinterpretation and misunderstanding by claimants and physicians."

Greater reliance on peer review will be sought under the revised policy. Aetna said it will ordinarily seek the advice of a peer review committee or other review mechanism utilized by the local medical society when questions arise that cannot be resolved in discussions with physicians.

PA training grant awarded

A contract for $109,869 has been awarded the St. Louis University School of Nursing and Allied Professions for the training of physician's assistants.

Awarded by the U.S. Department of Health, Education and Welfare, the contract will enable 16 students to receive training as physician's assistants. According to HEW officials, graduates of the program will go primarily into inner-city and rural areas to improve the delivery of medical care.

The training program was established a year ago through cooperative efforts of the St. Louis Veterans Administration Hospitals, St. Louis University and Washington University Schools of Medicine, the Junior College District and the Bi-State Regional Medical Program.

Eight students have been enrolled since last September in the St. Louis University training program.

THOMAS P. WEIL, Ph.D., ***Columbia***

The Nonurban Hospital in Missouri: Present Program Problems and Possible Alternatives

Part II

VARIOUS ALTERNATIVES

WHEN ONE EXAMINES the more current approaches and reports in the health care field in terms of meeting nonurban health and hospital needs, one learns that they are divided into those more concerned with either the organization or the financing of services, with too few considering that these are key interrelated factors in improving the current crisis.

Although others[3] might have selected different approaches and reports, for purposes of this paper, the following five alternatives (not mutually exclusive) are examined in the light of the observed problems (Part I) in rural health services in the state of Missouri: (a) Implementation of comprehensive health planning (CHP)[4] or the theme of "partnership in health"; (b) Passage of the national health insurance proposal as suggested recently by President Nixon; (c) Implementation of the recent Carnegie Commission Report, "Higher Education and the Nation's Health";[5] (d) Acceptance of the philosophy, the necessary legislation and implementation of the American Hospital Association's Ameriplan, "A Proposal for the Delivery and Financing of Health Services in the United States," frequently referred to as the Perloff Report;[6] and (e) Passage of compulsory national health insurance legislation as recommended by Sen. Edward Kennedy, Rep. Martha Griffiths, the Committee for National Health Insurance and many others who believe that this is the only feasible alternative to assure an adequate delivery of health services throughout the nation. Each of these alternatives will be discussed.

a. Comprehensive Health Planning Approach

The comprehensive health planning (CHP) approach in the United States is as old a concept as the attempts by the Rochester Hospital Council, the Bingham Associates in Maine and the voluntary area-wide planning councils after World War II. It requires an integration, sharing and coordination of health facilities and manpower (i.e., precludes everyone having everything they want, can afford and staff) and a mutual trust among governing boards, medical staff members and hospital administrators. The experience of the voluntary planning agencies in the past 25 years (whether concerned with the process or the outcome of planning) is less than encouraging since self-policing is not necessarily a practical reality. While theoretically correct and morally appropriate, the planning councils subsidized by hospitals, Blue Cross plans and company gifts have not had the necessary "clout" to accomplish their intended mission in most areas of the nation.

Many thought that CHP, closely following the Folsom legislation in New York State, might develop the appropriate partnership between the consumer and the provider to insure a more effective and efficient delivery of health services. The federal government has been loath to provide sufficient funds at the state level. In turn, most state comprehensive planning agencies established in 1966 are underfinanced and understaffed. Only a few states have developed an appropriate comprehensive health plan with recommended priorities and resource allocation.

Looking at the nation as a whole, as well as Missouri, most of the regional "B" planning agencies under CHP are located in urban areas or in rural locations which have a relatively long history of joining together to study health needs. It is significant that in 1971, St. Louis, Kansas City and Kirksville (location of the oldest school of osteopathy in the nation) were the three areas in Missouri that had approved and funded regional planning agencies. Other regions in the state are establishing similar agencies, but the process is exceedingly slow and arduous with the greatest fear being that a local institution might lose its autonomy. The suggestion that a less-than-50-bed institution be a satellite of a regional center is a most discomforting concept today in nonurban Missouri, although many agree it may be a necessity sometime in the future.

Based on the first four years of experience of CHP in Missouri as in most states, one must conclude that it will have little effect (beyond staffing meetings and providing some data) with respect to the integration and coordination of health services and facilities. The major beneficial effect is that many consumers and providers in a particular region are starting to discuss mutual problems. One can obviously suggest that CHP potentially can be the vehicle to improve the organization of health services in nonurban Missouri.

b. President Nixon's Proposals

In early 1971, President Nixon proposed a new health program that would require employers to pay much of the cost of a federally-prescribed package of medical benefits for workers and their dependents. The President's approach, outlined in a special message to Congress on Feb. 18, 1971, would rely on the existing nonprofit and private insurance industry to furnish the required coverage. Called a "National Health Insurance Partnership," it would start in July, 1973 with the costs being split between employers and employees.

Although the federal government would not contribute directly to the national program, employers' payments would be deductible for income tax purposes. The potential loss of federal revenue was estimated to be $1.5 billion to $2.5 billion per year and could increase employers' and employees' health insurance spending by $6.0 billion per year (approximately 10% of the present health expenditure of $60.0 billion, but a 50% increase in current annual expenditures by nonprofit and private carriers). Minimum benefits would include hospitalization, laboratory, radiology and outpatient care. Beneficiaries would be required to pay 25% of the cost up to $5,000, plus certain other deductibles. The plan would then pay the full costs of care up to $50,000.

When examining President Nixon's proposal in the light of the nonurban scene today, one concludes that the health insurance package could be a major new expense to small industrial firms and have little effect on the self-employed merchant or farmer who frequently has the least prepaid health insurance benefits. If new federal controls are sanctioned against the insurance carriers, e.g., premium rates, fixed retention or profit margin, this could have a significantly beneficial effect since those purchasing individual contracts might obtain group rates or some other special subsidy.

Other key elements of the President's proposal includes a new Family Health Insurance Program for low-income families that would replace a portion of the existing federal-state Medicaid system. The plan would furnish a basic package of benefits somewhat less generous than those proposed for the employer-employee financed plans to families with incomes up to $5,000 a year. The Family Health Insurance Program would establish a national level of minimum benefits paid entirely by the federal government at an added cost of $1.2 billion per year. Considering that the Missouri Medicaid program is not particularly adequate and at times has been under attack at the national level, a minimum floor would be exceedingly beneficial to many nonurban residents in the paying for health care services.

With the President's new health insurance proposal, premiums paid by the elderly for physician coverage (Part B) would be eliminated and the cost would be financed through Social Security payroll taxes. A highly controversial element of the program in view of the steadily increasing cost of this aspect of the Medicare program, this would provide more disposable income to the aged in rural Missouri.

Administration officials regard the development of health maintenance organizations (HMOs) as the key element in the President's proposal to reorganize the nation's health care system. An additional $43 million will be sought in the coming fiscal year to underwrite their establishment and operation (only $2.0 million had been earmarked for this purpose to date). Although there have been exceedingly successful group practice clinics in nonurban areas, e.g., Mary I. Bassett Hospital in Cooperstown, N. Y. or more locally, the Ferguson Clinic adjacent to the Missouri Delta Hospital in Sikeston, the modification of having them as prepaid endeavors is more complex. The key issue is that most nonurban physicians who have been in solo or partnership practice are not prone to expand into a larger group. Secondly, there is a certain amount of sensitivity of doctors of medicine and osteopathy practicing ambulatory care under one roof. Thirdly, many areas in rural Missouri have an insufficient number of physicians to band together in a multi-specialty group practice.

In viewing the total Nixon proposal, its passage would have a beneficial effect on the financing of health care services in nonurban Missouri. However, it falls short in providing a better delivery system in areas where there is a shortage of physicians and a deficiency in the availability of needed health services.

c. The Carnegie Report

The frequently cited Carnegie Report, "Higher Education and the Nation's Health: Policies for Medical and Dental Education," is concerned with the serious shortage of professional health manpower, the need for expanding and restructuring the education of professional health personnel and adapting the education of health manpower to the changes needed for an effective system of delivery of health care in the United States. The Carnegie Report's primary emphasis is more and better health manpower, particularly for physicians and dentists. The study commission assumed that the provision of highly skilled health manpower is a special responsibility of higher education, but the adequacy of health facilities is not the responsibility of universities and colleges, but of federal, state and local health authorities. The report further assumes "that as the result of private and public efforts, some form of health insurance will be available to all American citizens within this decade."[7]

Having as its major focus the future education of health manpower, the recent Carnegie Report recommends that there should be a very significant increase in the numbers admitted to medical and dental schools by expanding existing and developing nationally nine new schools. The study further recommends that "all university health science centers consider the development of programs for the training of physician's and dentist's associates and assistants . . . and recommends the conversion of Schools of Osteopathy to Schools of Medicine, wherever feasible." This has some rather interesting ramifications for the state of Missouri and, particularly, its nonurban areas.

Missouri ranks 21st in per capita income in the U. S. and is tied for 30th among the 50 states in expenditures for regular operating programs of medical schools per $100,000 of personal income.[8] Significantly, the "Show-Me" state ranks sixth (after the District of Columbia, Nebraska and Minnesota) in medical and dental students (other than interns and residents) per 100,000 population. While we provide a significant amount of undergraduate medical and dental education, we are roughly at the median for the number of interns and residents in hospitals affiliated with medical schools per 100,000 population. The result is that Missouri has just the average number of physicians per 1,000 population compared to national "norms."[9]

Evidence indicates that the urgency to solve health delivery problems in rural areas in the United States today is as serious as it is in the ghetto. Thus, programmatic problems of nonurban hospitals in Missouri are gaining the increasing attention of the medical profession. This two-part article presents a summary of hospital- and health-need studies made by the faculty and students of Graduate Studies in Health Services Management at the University of Missouri-Columbia and suggests possible solutions for the future. It considers the various political, social and economic forces and alerts the physician to activities of various investigating and planning groups.

Part I of this article appeared in the August, 1972 issue of this Journal.

Doctor Weil was Professor of Community Health and Director, Graduate Studies in Health Services Management, Schools of Medicine and Business and Public Administration, University of Missouri at the time this article was written.*

With four schools of medicine and two schools of osteopathy in Missouri, it is highly unlikely that the total number of schools can be increased or that there will be a mass implementation of physician assistant training programs. What may happen at one of the forthcoming sessions of the state legislature is that some form of subsidy to the four private schools or loans to the medical students will be provided. Some suggest providing loans to the students that would be repaid by the students' simply practicing in the state after completion of medical school. This would allow more of those students coming from low-income families to attend medical and dental school and would provide an incentive for them to remain in Missouri. This might increase the number of physicians per 1,000 population, and one would hope that the ghetto and rural areas would obtain their "fair share."

An increasing amount of medical care in nonurban areas of Missouri is being provided by osteopathic physicians who have graduated from the schools in Kirksville and Kansas City. Although there are some areas where there is still a separation of medical and osteopathic physicians in hospital practice, there is a significant increase in the number of joint medical staffs. One might predict that a conversion of the osteopathic to medical schools as recommended by the Carnegie Report might be adverse to rural Missouri. The osteopathic physicians are gaining strength as the family practitioners of rural Missouri. They are locating in small communities, which are of marginal interest to the M.D. Obviously, physician assistants working in conjunction with rural physicians (one to 3,000 persons) would provide a more effective delivery of ambulatory services.

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* Since writing this article, Doctor Weil has become Vice-President and Principal, E. D. Rosenfeld Associates, Inc., New York, N. Y.

The Carnegie Commission further recommended that "university health science centers should be responsible, in their respective geographic areas, for coordinating the education of health care personnel and for cooperation with other community agencies in improving the organization of health care delivery." This is an approach that is more difficult to implement as a private university, but exceedingly compatible with the tradition of a land grant school with an orientation to agricultural and other extension activities.

While providing continuing education programs at the medical school in Columbia and the telelecture network to 104 institutions (1971) throughout the state, the University of Missouri-Columbia to date has been unable to assume a major leadership role in shaping the delivery of health services in the central portion of the state. On the one hand, the faculty in most medical schools has community service at a lower priority than teaching, research and patient care. On the other hand, the facilities and health manpower in the region are sensitive about being "swallowed up by the big medical center." It is not uncommon for one to hear the remark, "Do you want us to be a satellite of the state school in Columbia?"

Hopefully, one of the approaches utilized might be the Carnegie Report recommendation that "residency training should include experience in community hospitals, neighborhood clinics and other facilities as well as in teaching hospitals." The University of Missouri-Columbia has "affiliations" throughout the state, but more than 95% of the medical student, intern and residency training is undertaken at the medical center. The university health centers must become more closely identified with all health manpower planning and training as recommended by the Carnegie Report.

The major theme of the Carnegie Report as it effects nonurban Missouri is (a) to provide more health manpower and (b) to improve the delivery of health services. Based on the experience of the past, e.g., the Missouri Regional Medical Program, one must be relatively conservative in suggesting that these recommendations will be easily implemented. However, the future does look somewhat brighter than the concrete accomplishments of the past.

d. Perloff Report

Relatively conservative and many times aligned with the American Medical Association in the past, the American Hospital Association with the Perloff Report (Ameriplan—A Proposal for the Delivery and Financing of Health Services in the United States) recommends the establishment of regional health care corporations having the resources necessary to provide "truly comprehensive health care to a defined population."

Closely modeled after the Kaiser Permanente concept and the Samaritan Health Service in Phoenix, it is basically a combination of rationalizing health resources along the lines inherent in comprehensive health planning and developing a broad, prepaid health care "package" that will obviate the necessity for national health insurance. It is by far the most progressive and dynamic plan recommended to date by the American Hospital Association for alleviating the crisis in the health field, interestingly, by placing the general hospital as the major pivotal force for the total scheme. Many liberals are stating that it is too much too late, and, basically, the physicians, the hospitals and the Blue Cross-Blue Shield plans cannot implement the concepts with a timetable that will sufficiently reduce national and state consumer pressures.

Rather than a brick-and-mortar program like Hill-Burton, "Ameriplan" could coordinate and integrate programs, facilities and services in nonurban Missouri. Highly compatible with the 13 faculty and student reports mentioned earlier, the new recommended AHA plan appropriately directed and implemented would go far in resolving many nonurban health and hospital issues in nonurban Missouri. The major issue is providing the consumer, medical and administrative leadership at the regional level and locating the manpower to make it a success. The concept is sound—the implementation may be difficult.

e. Compulsory National Health Insurance

The most controversial alternative in rural Missouri today is the passage and implementation of a compulsory national health insurance plan with a federal payroll tax to finance a broad spectrum of medical and hospital services.[10] Since most proposals are being heavily oriented to the financing and less oriented to the organization of the services, the question arises of what really would occur in the health care delivery arena. Fearing that the experience of Medicare and Medicaid will be replicated in nonurban Missouri in providing additional financing but not increasing services to the aged and the indigent, hopefully, in the months to come, the Kennedy or other proposals will be concerned with how health services are organized and provided.

After studying the health care systems of the United Kingdom and Australia, one can only conclude that a compulsory federal payroll tax to provide health insurance coverage does not necessarily by itself develop an improved coordination, a better distribution of manpower or reduced health and hospital capital and operating costs. Most of the discussion in Congress concerned with a compulsory national health insurance program is related to blanketing everyone under the Social Security mechanism rather than at the same time altering the system and building in the appropriate incentives. Some are willing to establish the principle of universal coverage and work out the details later (including the costs, which are estimated between $35 billion and $50 billion a year). This would be a major mistake for nonurban Missouri as well as the nation.

The various alternative approaches to providing an improved delivery system will continue to be discussed in nonurban Missouri, considering that health and hospital needs have been identified in many areas at the local and regional level. Political, social and economic forces will shape the future and, hopefully, the outcome will be more comprehensive and integrated health services for all citizens. It is up to many of us to plan and then implement the approach effectively and efficiently. This is a major responsibility.

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9. Ibid, p. 86.

10. An excellent summary of various alternatives including the American Medical Association "Medicredit" plan is found in: National Health Insurance: A Comparison of Five Proposals. Research and Statistics Note No. 12-170. Social Security Administration, Department of Health, Education and Welfare, July 22, 1970.

Reprints: *Thomas P. Weil, Ph.D.*
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Veterans Administration Drug Treatment Program Available to Veterans from Missouri

The VA Hospital (Ft. Roots), North Little Rock Division (NLR, Ark.), Drug Treatment Program is housed in Building 63. Entry into the program is based on voluntary admission or civil commitment. All agencies counseling with a veteran seeking voluntary treatment for his drug problem should explain the following information to him before referring the individual to this program.

The basic treatment program is of three months duration, plus optional periods of additional time if the veteran desires to continue in treatment, extended vocational planning, etc. All special planning for the veteran, after finishing the basic program, takes place on an individual basis in conference with appropriate staff members.

Essentially, the program is divided into four phases as follows: (1) First week's residence on the Detoxification Area; (2) Second week in a candidacy evaluation status; (3) If accepted, then placed in the treatment program for ten weeks; and (4) Discharge and outpatient treatment unless the veteran and staff mutually agree to an extension of program time for special treatment or planning.

The content of the program includes the following rehabilitation services: (a) Medically supervised detoxification; (b) Attention to personal living problems through the uses of group psychotherapy such as confrontation sessions, Synanon-type meetings, human relations training and psychodrama; (c) Individual counseling upon request; (d) Family therapy; (e) Vocational counseling and job placement; (f) Drug education; (g) Peer group patient meetings; and (h) Outpatient followup on an intensive and extensive basis.

This Drug Treatment Program does not use the methadone maintenance treatment approach. Methadone is used only during the detoxification withdrawal phase if medically indicated.

Visiting rules follow this brochure description and are enforced.

VISITING POLICIES

There will be no visitors for the patient's first 37 days in the hospital.[*] When patients are allowed visitors, the following visiting hours and rules will apply, and it is expected that family and friends strictly observe them:

7:30-9:00 PM—Tuesday and Wednesday
1:00-4:00 PM—Weekends and holidays
7:30-9:00 PM—Sundays and holidays

Any visitor bringing drugs, alcohol or weapons on the station is subject to federal prosecution.

(Continued on page 726)

As a service to physicians in Missouri, MISSOURI MEDICINE is publishing the following letter which was sent to the Missouri State Medical Association by Sydney R. Ogden, M.S.S.W., Coordinator of Social Services for Addictions, Veterans Administration, North Little Rock Hospital Division, North Little Rock, Ark. 72114.

Information about the basic drug treatment and visiting policies accompany this letter:

"This hospital has recently developed a comprehensive treatment program for veterans with problems of drug abuse. The program is part of the nationwide Veterans Administration Drug Treatment Network of 32 such units established in September of 1971. Our inpatient facility is in operation, and we are developing an intensive outpatient program.

"We will serve veterans from Arkansas and the surrounding states. For services in the Drug Treatment Program, a veteran is defined as a man who has had a period of active duty in the military service, other than for training purposes, and has a drug abuse problem.

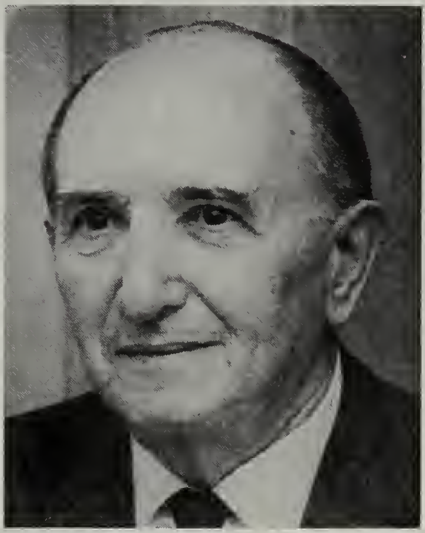
"Patients can be admitted at anytime during the days of the week by seeing the physician in the Admission Office in Building 37. Admission procedures can be expedited if (1) prospective patients bring proof of military service with them, and (2) seek admission between the hours of 8:30 AM and 4 PM, Monday through Friday.

"If you have need for further information, please do not hesitate to correspond."

---

[*] Please correspond with the patient as to the specific dates when his visiting privileges will begin.

Michael Somogyi, Ph.D. (1883-1971)



Michael Somogyi, Ph.D.

Michael Somogyi was born in Reinersdorf, Austria-Hungary on March 7, 1883. At age 16, he enrolled at the University of Budapest and supported himself through graduation, when he received a degree in chemical engineering. He spent the following year at the University as assistant in biochemistry.

The romantic books he had read about America induced him to come to the United States, but the only employment he could find after his arrival was driving a horse and buggy for a German physician in New York and, later, working in a Cincinnati rope factory for $7 a week.

He sent to Budapest for letters of introduction and returned to New York City where he was an assistant in biochemistry at Cornell University Medical College from 1906 to 1908. He then returned to Budapest and served as head chemist in the Municipal Laboratory for more than a decade, which included several agonizing years during World War I when he was placed in charge of feeding the destitute. He received his Ph.D. degree at the University of Budapest in 1914. The subject of his doctoral dissertation was “Catalytic Hydrogenation.”

In 1922, Doctor Somogyi was invited to return to the United States by P. A. Shaffer, Ph.D., a former colleague at Cornell University. He became an instructor in biological chemistry at the Washington University School of Medicine in St. Louis. In 1926, he was appointed as the first biochemist at The Jewish Hospital of St. Louis, a position he held until his retirement in 1957. In 1969, Doctor Somogyi suffered a massive stroke from which he did not recover. He died on July 21, 1971.

In 1922, while a member of the faculty of Washington University School of Medicine and in teamwork with Drs. P. A. Shaffer and E. A. Doisy, Doctor Somogyi was instrumental in working out the method for the preparation of insulin. To this day, this method is used throughout the world for the commercial production of insulin. The first child diabetic in the United States to be treated with insulin was an 18-month-old baby boy in the St. Louis Children’s Hospital in early October, 1922. Insulin prepared by this trio of researchers was used.

During Doctor Somogyi’s years at The Jewish Hospital of St. Louis, he consulted with his physician-associates about the care of more than 5,000 patients with diabetes mellitus. In 1949 at the American Chemical Society meeting in Atlantic City, N. J., he stated in a paper that many diabetic patients were receiving such large doses of insulin that they were “actually victims of chronic insulin poisoning.” As a result of this one paper, he received letters from all over the world requesting help.

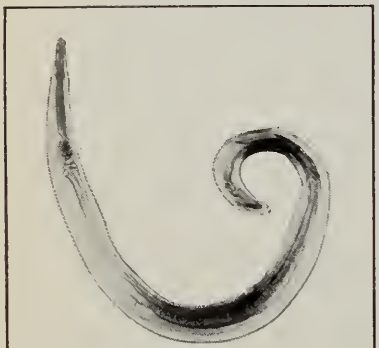
In addition to his criticism of the use of excessive doses of insulin, Doctor Somogyi believed that many diabetic patients who were maintained on insulin therapy could be better managed with a proper diet and weight loss. He believed that insulin injection is inappropriate therapy for overweight diabetics. He discovered that the glucose tolerance of most diabetics improves with weight loss, often to the point at which they become aglycosuric and can continue so on a proper diet. When hypoglycemic agents became available for oral doses, he predicted that they would eventually be discarded as useless and even harmful.

Dr. Michael Somogyi published more than 70 papers on various aspects of clinical chemistry. His last three major articles were published in the February, 1959 issue of the *American Journal of Medicine* and were entitled “Quantitative Re-

(Continued on page 726)

This editorial sketch was prepared by Harvey Walker, Jr., M.D., Ph.D., St. Louis.

Pinworm therapy is often a family affair



Contraindications: History of hypersensitivity to thiabendazole.
Warnings: If hypersensitivity reactions occur, drug should be discontinued immediately and not resumed. Rarely, erythema multiforme has been associated with thiabendazole therapy; in severe cases (Stevens-Johnson syndrome), fatalities have occurred. Because CNS side effects may occur quite frequently, activities requiring mental alertness should be avoided. Safe use in pregnancy or lactation has not been established.
Precautions: Ideally, supportive therapy is indicated for anemic, dehydrated, or malnourished patients prior to initiation of anthelmintic therapy. In presence of hepatic or renal dysfunction, patients should be carefully monitored.
Adverse Reactions: Most frequently encountered are anorexia, nausea, vomiting, and dizziness. Less frequently, diarrhea, epigastric distress, pruritus, weariness, drowsiness, giddiness, and headache have occurred. Rarely, tinnitus, hyperirritability, numbness, abnormal sensation in eyes, blurring of vision, xanthopsia; hypotension, collapse; enuresis; transient rise in cephalin flocculation and SGOT; perianal rash, cholestasis and parenchymal liver damage; hyperglycemia; transient leukopeni malodor of the urine, crystalluria, hematuria; appearance of liv Ascaris in the mouth and nose. Hypersensitivity reactions

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associated with diseases affecting the ves-
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INDICATIONS. Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12th-15th day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

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VA Drug Treatment

(Continued from page 722)

No children under 15 years of age are allowed in the building.

No food stuffs, beverages or smoking material of any type will be brought to the closed ward from the outside. Those articles may be obtained by the patient through purchase from the VA Hospital Canteen each day.

No telephone calls may be made by the patient except in the presence of authorized personnel while the patient is on the closed ward. Letter writing is encouraged.

Cars are discouraged at the hospital, since storage space is very limited. However, if it is necessary that a patient drive his car to the station, a member of the patient's family or another responsible person should pick up the car and return it to his home.

Michael Somogyi

(Continued from page 723)

lationship Between Insulin Dosage and the Amount of Carbohydrates Utilized in Diabetic Persons," "Exacerbation of Diabetes by Excess Insulin Action," and "Diabetogenic Effect of Hyperinsulinism." The effect discussed in this last paper is now known around the world as the "Somogyi Effect," which can be summarized in his phrase, "Hypoglycemia begets hyperglycemia."

Doctor Somogyi was honored for research in food chemistry by The Royal Academy of Sciences of Budapest in 1914, and by clinical chemists with the Ernst Bischoff Award in 1953 and the Donald D. Van Slyke Award in 1964.

Although Doctor Somogyi was not a physician, his name and work have been known throughout the medical world for many years. His teaching has been an influence in the training of many Missouri physicians and, indeed, of many from outside the state who have received any part of their medical education in Missouri.

MISSOURI MEDICINE *welcomes comments and contributions from its readers. Correspondence should be addressed to the Editor with the understanding that such correspondence may be rejected or published (in entirety or in part) at the discretion of the Editor. With the exception of scientific papers, correspondence usually cannot be acknowledged or returned.*

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mation, a summary of which follows:

Indications: Acute, recurrent or chronic urinary tract
fections (primarily cystitis, pyelitis, pyelonephritis)
to susceptible organisms (usually *E. coli, Klebsie*
Aerobacter, Staphylococcus aureus, Proteus mirab
and less frequently, *Proteus vulgaris*) in the absence
obstructive uropathy or foreign bodies.
IMPORTANT NOTE: *In vitro* sulfonamide sensitivity test
are not always reliable. The test must be carefully coord
nated with bacteriologic and clinical response. When t
patient is already taking sulfonamides, follow-up culture
should have aminobenzoic acid added to the culture media
Currently, the increasing frequency of resistant organism
is a limitation of the usefulness of antibacterial agents
cluding the sulfonamides, especially in the treatment
chronic and recurrent urinary tract infections.
Free sulfonamide blood levels should be measured in p
tients receiving sulfonamides for serious infections sinc
there may be wide variations with identical doses; 20 mg
100 ml should be maximum total sulfonamide level, a
adverse reactions occur more frequently above this leve
Contraindications: Hypersensitivity to sulfonamides,
fants less than 2 months of age (except adjunctively w
pyrimethamine in congenital toxoplasmosis), pregnan
at term, and during the nursing period.
Warnings: Safety of sulfonamides in *pregnancy* has n
been established. Sulfonamides will not eradicate gro
A streptococci. Deaths associated with sulfonamide a
ministration have been reported from hypersensiti
reactions, agranulocytosis, aplastic anemia and oth
blood dyscrasias. Clinical signs such as sore throat, feve
pallor, purpura or jaundice may be early indications
serious blood disorders. Complete blood counts a
urinalyses with careful microscopic examination shou
be performed frequently during sulfonamide therapy.
Precautions: Use with caution when impaired renal
hepatic function, severe allergy or bronchial asthma
present. In glucose-6-phosphate dehydrogenase-deficie
individuals, hemolysis (frequently a dose-related rea
tion) may occur. Maintain adequate fluid intake to pr
vent crystalluria and stone formation.
Adverse Reactions: *Blood dyscrasias:* Agranulocytos
aplastic anemia, thrombocytopenia, leukopenia, hem
lytic anemia, purpura, hypoprothrombinemia, methem
globinemia. *Allergic reactions:* Erythema multiforme (St
vens-Johnson syndrome), generalized skin eruption
epidermal necrolysis, urticaria, serum sickness, pruritu-
exfoliative dermatitis, anaphylactoid reactions, periorb
tal edema, conjunctival and scleral injection, photosens
tization, arthralgia, allergic myocarditis. *Gastrointest*
reactions: Nausea, emesis, abdominal pains, hepat
diarrhea, anorexia, pancreatitis, stomatitis. *C.N.S. reac*
tions: Headache, peripheral neuritis, mental depressio
convulsions, ataxia, hallucinations, tinnitus, vertigo,
somnia. *Miscellaneous reactions:* Drug fever, chills, tox
nephrosis with oliguria and anuria. Periarteritis nodos
and L.E. phenomenon have occurred with sulfonami
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Notes of interest from Here . . . . and There

Dr. F. T. H'Doubler, Jr., past-potentate of Abou Ben Adhem Temple, Springfield, has been elected imperial captain of the guard of the Shrine of North America by 781 voting representatives (delegates) from 171 Temples throughout North America. He was elected at the Shrinetennial Imperial Council Session of the nearly 900,000-member organization at Fort Worth, Tex. The imperial officer will become leader of the worldwide fraternal and philanthropic group if tradition is followed. Active in numerous medical and civic organizations, Doctor H'Doubler was named Outstanding Young Man of the Year for Springfield by the Jaycees in 1959 and was winner of the Distinguished Service Award of Missouri that year, also. He is engaged in practice in Springfield with his brother, **Dr. Charles E. H'Doubler.**

Dr. John T. Crowe, Cape Girardeau, has been awarded the Past-President's Award for outstanding community service by the Breakfast Optimist Club of Cape Girardeau. Doctor Crowe has won other citations and honors for community activities, including the Pfizer Award for Health Service Planning in 1967 and the Distinguished Service Award for Medical Disaster Planning of the Missouri Civil Defense. He has served as chairman of the Emergency Medical Service Committee of the MSMA and as director for Health Services for the Cape County Civil Defense. He is a member of several professional organizations and is a past-president of the Missouri Academy of Family Practice.

Dr. Robert L. Glass, Columbia, has been appointed to the surgical staff of the Ellis Fischel State Cancer Hospital. A consultant to the hospital since 1969, he replaces **Dr. Carl Knutson**, who has moved to Louisville, Ky., to become director of the surgical resident training program at St. Joseph Infirmary and, also, an assistant professor of surgery at the University of Louisville School of Medicine.

Dr. Wyeth Hamlin, Hannibal, has been elected chairman of Missouri Regional Medical Program's Regional Advisory Group. State Rep. Donald Hancock is vice-chairman. The 12-member group, which represents various geographical areas and occupations, is appointed by Gov. Warren E. Hearnes for three-year terms.

Dr. William C. Banton, II announced on July 18, 1972 that he is resigning his position as Health Commissioner for the city of St. Louis. He shall begin terminal leave on September 11. Doctor Banton stated that, as of July, his family has assumed an official residence outside the corporate limits of the city of St. Louis. His association with the City Health Division spanned more than 20 years, first as a chest disease specialist, then as Tuberculosis Controller and as Health Commissioner the past two years.

Dr. C. A. Brasher, superintendent and medical director of the Missouri State Chest Hospital in Mount Vernon, was among those receiving special recognition recently for accumulated years of service at the hospital. Some 226 employees were honored for having completed more than ten years of service at the facility representing 4,018 years.—**Dr. Fred O. Tietjen**, Jefferson City, was elected president of the Missouri State Orthopaedic Association at its annual convention at the Lake of the Ozarks. He succeeds **Dr. Robert Fitzgerald** of Kansas City.

WASHINGTON

An election year battle between a Democratic congress and President Nixon is in prospect over the bill appropriating funds for federal health programs. President Nixon feels that the budget-busting HEW money bill, which soared $2 billion above what he recommended, and other pending appropriations measures will send the federal budget for this fiscal year out of sight. White House aides say Congress already has topped the budget by more than $6 billion.

President Nixon is considering either a special message to Congress or a national television address or both, outlining the perils of higher federal outlays. The maneuvering for political advantage that will mark the remainder of this session of Congress promises the fascination and intricacies of a championship chess match. President Nixon is prepared to pound home the theme that fat federal budgets lead to inflation and higher federal taxes. Democrats are geared to holler that the Administration wants to chop vital and popular federal programs.

"There seems to be a cynical strategy on the part of some Democratic leaders to deliberately send to the President proposals with good objectives but proposals that substantially exceed his budget requests," declared William Timmons, White House Assistant for Congressional Relations. President Nixon was quoted by Secretary of the Treasury George Schultz as saying that "the ball game on the control of inflation is fought out fundamentally in terms of monetary and fiscal policy . . . we feel that we are at the point where any time you have a vote for extra spending going beyond the President's budget, you have a vote for higher prices or higher taxes."

* * *

The HEW Department has said hospitals funded under the Hill-Burton Act will be reviewed on a case-to-case basis to determine whether a "reasonable volume" of free care is furnished to persons unable to pay.

This interim regulation will enable hospitals already providing a large amount of free care to submit a financial report to that effect and be automatically in compliance. It also provides "presumptive compliance" levels of free care, lower than first recommended in April, which can be met in any one of three ways an institution chooses. In addition, it sets guidelines for individualized determination for hospitals which are unable to meet the "presumptive compliance" levels.

In general, the new policy met objections of the American Hospital Association that the original proposals could put many hospitals out of business.

HEW Secretary Elliot Richardson said the regulation, modified as recommended to him by the Federal Hospital Council, is being issued now in interim form so that some regulation will be immediately in effect in view of pending court cases seeking to compel him to act promptly.

Vernon E. Wilson, M.D., Administrator of the Health Services and Mental Health Administration, which directs the Hill-Burton program, said:

"Much misunderstanding arose over the earlier version of this interim regulation published for comment back in April. Many people felt that the 'presumptive compliance' guidelines constituted standards to which hospitals would be held. It is important to understand that any institution which falls below the 'presumptive compliance' guidelines will have an individualized determination of what constitutes a reasonable volume of free care."

* * *

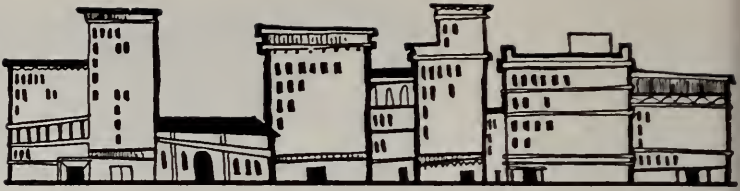
The National Institutes of Health has announced it will conduct major study of acupuncture, the ancient Chinese medical practice of curing illness and relieving pain by piercing the skin with needles.

Howard P. Jenerick, special assistant to the Director of the National Institute of General Medical Sciences, said the study would involve use of acupuncture as an anesthetic and alleviation of pain from neuralgia, nerve injuries and cancer.

He predicted the study, to cost "hundreds of thousands" of dollars, would lead to acupuncture treatment of American patients within a year.

(Continued on page 767)

From the Medical Schools



WASHINGTON UNIVERSITY

Charles R. Gulick, M.D., assistant professor of clinical obstetrics and gynecology, has been elected to serve on the Washington University School of Medicine Executive Faculty under the new arrangement wherein a representative is elected by the part-time faculty. Doctor Gulick, who will serve for a one-year term, will be a voting member of the Medical School's governing body.

Dr. Charles R. Gulick

Doctor Gulick was appointed an instructor in clinical obstetrics and gynecology in 1951 and was promoted to assistant professor in 1965. He is Treasurer of the Missouri State Medical Association and a past-president of the Missouri State Obstetrical and Gynecological Society and of the Barnes and Allied Hospitals Society. He has served as vice-president of the St. Louis Gynecological Society and of the St. Louis Medical Society.

Joseph H. Ogura, M.D., Lindburg Professor and head of the Department of Otolaryngology, has been appointed to the National Cancer Advisory Board by President Nixon, the White House has announced. Doctor Ogura fills the position held on the Advisory Board by the late *Wendell C. Scott,* M.D., professor of radiology at the School of Medicine.

Doctor Ogura is an internationally-known specialist in head and neck surgery. He came to Washington University in 1948 as instructor in otolaryngology, was made assistant professor in 1951, associate professor in 1953 and professor in 1960. He was named head of the department in 1966.

Dr. Joseph A. Kopta

Dr. Hugh M. Chaplin, Jr.

Joseph A. Kopta, M.D., assistant professor of orthopedic surgery, became the director of the Irene Walter Johnson Institute of Rehabilitation at the School of Medicine on August 1. He succeeded *Hugh M. Chaplin, Jr.,* M.D., professor of medicine and Kountz professor of preventive medicine.

Doctor Chaplin, Institute director since 1964, will undertake a study of the teaching of population stabilization to medical students, under the support of a $22,000 grant from the Rockefeller Foundation. He also will devote more time to immunohematology research and will assist during a transition period with the Rehabilitation Institute's architectural expansion program. The construction is scheduled to begin this fall.

Under Dr. Chaplin's direction, the Institute's staff increased from 22 to 32, patient treatment visits from 19,000 to 26,000 annually and the operating budget rose from $150,000 to approximately $300,000. He also developed the teaching program to include a medical student's summer elective and training for professionals in most health care areas, such as nursing and social work. An estimated 300 students are taught yearly at the Institute.

Doctor Kopta joined the Washington University faculty in 1970. He received the B.S. degree in 1958 and the M.D. degree in 1962 from the University of Oklahoma. He earned a Master in Medical Education degree from the University of Illinois Medical Center in Chicago in 1970.

Robert M. Senior, M.D., assistant professor of medicine at Washington University and director of the pulmonary division at the Jewish Hospital of St. Louis, has received $41,770 from the National Heart and Lung Institute of the National Institutes of Health, Bethesda, Md. The award will be used to promote undergraduate training in lung diseases at Washington University School of Medicine. The grant is scheduled to be renewed for four additional years. Physicians at 15 other medical schools also are receiving NHLI pulmonary academic awards.

A $54,725 grant for research and treatment of eye problems of diabetics has been received by the School of Medicine. *Bernard Becker,* M.D., professor of ophthalmology and head of the department, announced that funds are coming from the National Eye Institute of the National Institutes of Health. This is the first of a ten-year study which will treat more than 18,000 patients in 16 clinical centers across the nation. The grant is for evaluating new methods of treating diabetic retinopathy.

UNIVERSITY OF MISSOURI-COLUMBIA

Joe S. Greathouse, Jr., who has been director of the Vanderbilt University Hospital in Nashville, Tenn. for five years, has assumed the position of director of the University Hospital and Clinics at the University of Missouri-Columbia. The appointment was announced by *Herbert W. Schooling,* Chancellor.

"The appointment of Mr. Greathouse, a person possessing exceptionally fine qualifications, adds much needed administrative strength to the total health care team of the Medical Center," Chancellor Schooling said. "Administration of the hospital until now has been handled by *Dr. William D. Mayer,* director of the Medical Center and dean of the School of Medicine, and *Dr. Kenneth Keown,* medical director of the hospital. I know that Mr. Greathouse will provide valuable assistance to all of us in fulfilling the administrative needs of the hospital complex."

A native of Lewisport, Ky., Mr. Greathouse is a graduate of the University of Kentucky and received his M.S. degree in hospital administration with honors from Northwestern University. He became associated with Vanderbilt Hospital in 1956 as an assistant director and was promoted to director in 1967. He is a member of the administrative board of the Council of Teaching Hospitals of the Association of American Medical Colleges, a member of the House of Delegates of the American Hospital Association and a past-president of the Tennessee Hospital Association.

Mr. Greathouse will have full authority for the operation of the 454-bed University Hospital, the outpatient clinics which handle approximately 90,000 patient visits annually, business and financial operations of these units and management of the 1,700 full-time and 800 part-time nonacademic employees of the Medical Center complex.

Joe S. Greathouse, Jr.

The appointment of Mr. Greathouse was related to two studies carried out earlier this year within the Medical Center, Doctor Mayer said in response to inquiries following the announcement. He said that one of the studies represented the efforts of a 15-member committee comprised of administrative staff and faculty members within the Center. The second study was made by an outside group of consultants headed by John M. Danielson, director of the Department of Health Services and Teaching Hospitals of the Association of American Medical Colleges.

"Recommendations of both groups were quite similar. Both reports are internal working documents which will provide guidelines for future directions of the University Hospital and Clinics," stated Doctor Mayer.

Doctor Mayer said he initiated the studies because it is his responsibility in the UMC administration to periodically review the structure and functions of the particular part that he oversees—the total Medical Center complex. He added, "The ultimate implementation of the recommendations of the two reports should significantly improve our capability of meeting our responsibility for the health care of the citizens of the state of Missouri."

He emphasized that the guidelines established in the reports are not policy statements as such, but rather a framework from which future policies will be developed. It may take upward of five years to carry out the total effort that has been proposed, he added.

One part of the report recommended: "There should be an identifiable Director of the Hospital (separate from the Dean) whose primary objective and responsibility is patient care. The Director of the University Hospital should have the authority to determine and enforce operational rules and policy."

"Implementation of this particular component of the report resulted in Mr. Greathouse's appointment," Dean Mayer said.

Other recommendations range from providing more adequate parking for patients and visitors to changes in the referral policy of the Medical Center.

Many of the recommendations require only administrative action to implement, while others require policy changes at various levels.

ST. LOUIS UNIVERSITY

St. Louis University, through its Medical Center, and DePaul Community Health Center jointly announce an agreement of affiliation for the purpose of establishing a joint medical education program.

In making the announcement, *Anthony L. Bunker,* executive director of DePaul Community Health Center, cited as the major reason for the affiliation "a primary concern on the part of DePaul for quality patient care coupled with sincere interest in medical education and research."

Rev. E. J. Drummond, S.J., vice-president for the St. Louis University Medical Center, stated that the "University entered into the agreement for the betterment of health education and patient care in our community." "With our increasing enrollment at the School of Medicine, we also felt that DePaul Community Health Center was a natural extension of our current teaching facilities," added Father Drummond.

Under terms of the agreement, St. Louis University will provide a Medical Director for DePaul as well as certain other key personnel. The University, in turn, will depend upon DePaul to supplement its clinical teaching facilities for medical students, interns and residents.

The University has already established its inpatient obstetrical service at DePaul, at least for the duration of the $18 million expansion and renovation program now underway at the University Medical Center.

Dr. Simon Horenstein, professor and chairman of the Department of Neurology at the St. Louis University School of Medicine, was appointed chief of the Neurology Service at the Veterans Administration Hospital in St. Louis, effective August 1. Doctor Horenstein will continue his duties at the School of Medicine in addition to his new post.

Announcement of his appointment was made jointly by *David Anton,* director of the St. Louis Veterans Administration Hospital, and *Dr. Robert H. Felix,* dean of the St. Louis University School of Medicine.

The Neurology Service at the St. Louis Veterans Administration Hospital, with Doctor Horenstein as its chief, is a newly-created service separating from the Psychiatry and Neurology Service which has been changed to a Mental Health and Behavorial Sciences Service.

In commenting on the appointment, Anton stated, "The establishment of the Neurology Service in this way helps toward consolidating the neurological care program at both divisions of the St. Louis VA Hospital. It provides for a continuity of progressive care from the acute patient needs, until full potential restoration is accomplished. Other VA Hospitals in the St. Louis medical district, including Missouri and Southern Illinois, without an active neurological service, now have a more solid base of support available. With Doctor Horenstein being both chief of neurology at the St. Louis University Hospitals and the St. Louis Veterans Hospital, the basis for continuous medical education is enhanced."

Dr. Horenstein's office and laboratory are located both at the David P. Wohl Memorial Mental Health Institute within the St. Louis University Medical Center and at the St. Louis Veterans Administration Hospital.

Dr. Horenstein is presently on the active staff of the St. Louis University Group of Hospitals and the St. Louis County Hospital. He is a Fellow of the American Academy of Neurology and an Associate of the American Association of Neuro-Pathologists. He is special consultant to the Director of National Institutes of Health on the Neurological Sciences Research Training "A" Committee. He is a member of the task force on Neurological Services, Commission on Neurology, sponsored by the American Neurological Association and American Academy of Neurology. He is chairman of the Stroke Committee of the Bi-State Regional Medical Program.

Recent appointees to the medical faculty include *Jerry E. Anderson,* M.D., instructor in radiology; *Arthur C. J. Brickel,* M.D., instructor in neurology; *Robert E. Burdge,* M.D., instructor in orthopedic surgery; (Mrs.) *Estrella Z. Avila,* M.D., instructor in internal medicine; *James W. Fletcher,* M.D., assistant professor of internal medicine; *Rodolfo T. Guillen,* M.D., assistant clinical professor of internal medicine; *Harry G. Hightower,* M.D., assistant clinical professor of psychiatry; *Patrick A. Hogan,* M.D., instructor in neurology; *Hartmut Kannegiesser,* M.D., assistant professor of internal medicine; *David M. Keefe,* M.D., instructor in pediatrics; *Roger K. Kipfer,* Ph.D., instructor in biochemistry; *William P. Lampros,* M.D., instructor in otolaryngology; *Barry L. Marrs,* Ph.D., assistant professor of biochemistry; *Michael G. Murphy,* M.D., instructor in surgery; (Mrs.) *Chintana S. Phipatanakul,* M.D., instructor in internal medicine; and *Charles J. Sigmund, Jr.,* M.D., assistant professor of internal medicine. The majority of these appointments became effective on July 1, while others are effective on September 1.

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C. GIANNELLIS, M.D. *and* S. F. BOWEN, JR., M.D.,
St. Louis

Dermothermography as a Diagnostic Aid in Carotid Artery Disease

In medical practice, there is continuing pressure to do more for more people. The number of physicians is limited. As new tests which will allow extending skills become available to physicians, they should be evaluated and used. Dermothermography is a relatively new technique which can be applied as an aid in the diagnosis of carotid artery disease as an adjunct to ophthalmodynamometry.

Its major value may lie in its use as a screening test, a large part of which can be performed by a technician who could be trained in the same manner as an x-ray technician. The interpretation of the results could then be done by the physician in the same manner as the radiologist interprets x-rays. The dermothermograms used to illustrate this article were taken with a Barnes Bofor S Model M-101 high-speed medical thermograph which is part of the equipment provided by the Bi-State Regional Medical Program Stroke Diagnostic Unit centered at St. Louis University Medical Center.

Dermothermography is a form of recording body surface temperatures and is based on the fact that the skin, like every other object, emits infrared radiation energy. Historically, Sir William Herschel, the English astronomer, was the first to notice some 150 years ago the presence of rays beyond the red end of the visible spectrum.[1] He was impressed by their heating capability and introduced the adjective "infrared" in order to characterize the nature and the location of the rays in relation to the visible spectrum. Several years later, his son, Sir John Herschel, succeeded in making the infrared rays traceable by covering paper strips with lampblack and soaking them in alcohol. He exposed certain spots of the strips to infrared radiation and observed that the alcohol evaporated faster from those parts, in comparison to the unexposed strips.

The relatively fast evaporation resulted in the appearance of lighter color areas. He called the paper strips with the infrared tracings "thermographs." In about 1956,[2] Lawson in Canada initi-

This review of dermothermography and its application to diagnosis of carotid artery disease illustrates the usefulness of the technique as a screening test that can be given by a well-trained technician. Doctor Giannellis is a Fellow, Retina Service, Department of Ophthalmology and Doctor Bowen is Assistant Clinical Professor of Ophthalmology at St. Louis University School of Medicine. This work was supported by the Bi-State Regional Medical Program in St. Louis under a grant from the Regional Medical Programs Services of the Health Services and Mental Health Administration of the Department of Health, Education and Welfare.

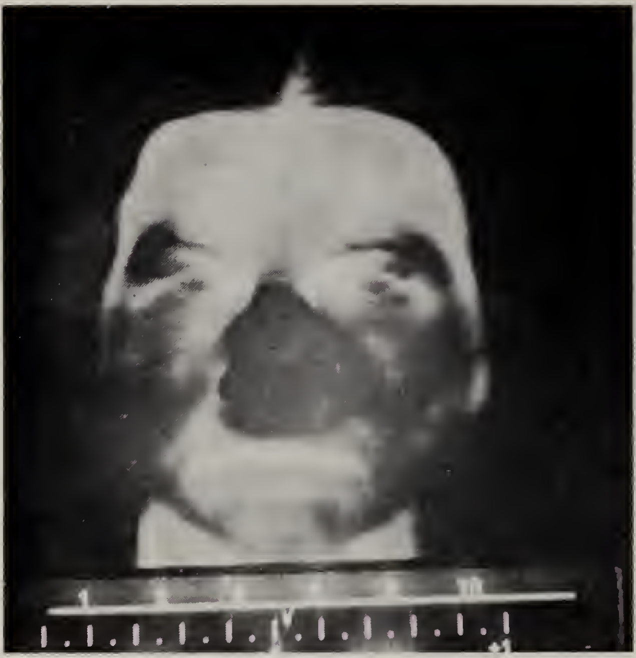

Fig. 1 Normal thermodermogram in a patient with normal ophthalmodynamometry and normal carotid arteriogram. Note that both sides of the forehead have the same degree of darkness, indicating equal temperatures.

ated the use of infrared rays for the diagnosis of cancer through skin temperatures.

Every object constantly exchanges infrared radiation with its environment, provided that a temperature other than the absolute zero is present. The human skin emits infrared radiant energy from 5 μ to 20 μ with an average peak at about 10 μ. The emissivity of the skin is practically similar to that of a "black body" in which the radiating power is equal to the absorbing power of the surface under consideration. Actually, this value of the skin was found to be 98.9% ± 1, as compared to an entirely "black body."[3-5]

While skin pigmentation influences emissivity of the visible spectrum (400 mμ-750 mμ), it does not produce any alterations in the infrared region. Thus, skin temperature measurements based on infrared ray emission are reliable regardless of race, suntan or correlated factors. In last analysis, dermothermography serves the same purpose as dermothermometry. However, thermography is perhaps more accurate and reliable because direct contact with the skin is avoided and regional, rather than pinpoint, readings are obtainable.[4, 6]

Dermothermography should not be confused with infrared photography which required that the object be first illuminated with an external light source. Infrared photography can be accomplished by any ordinary camera equipped with a film sensitive to rays beyond the red end of the spectrum and a filter to eliminate visible wave lengths. Dermothermography, on the other hand, can be taken in total darkness without preliminary illumination.

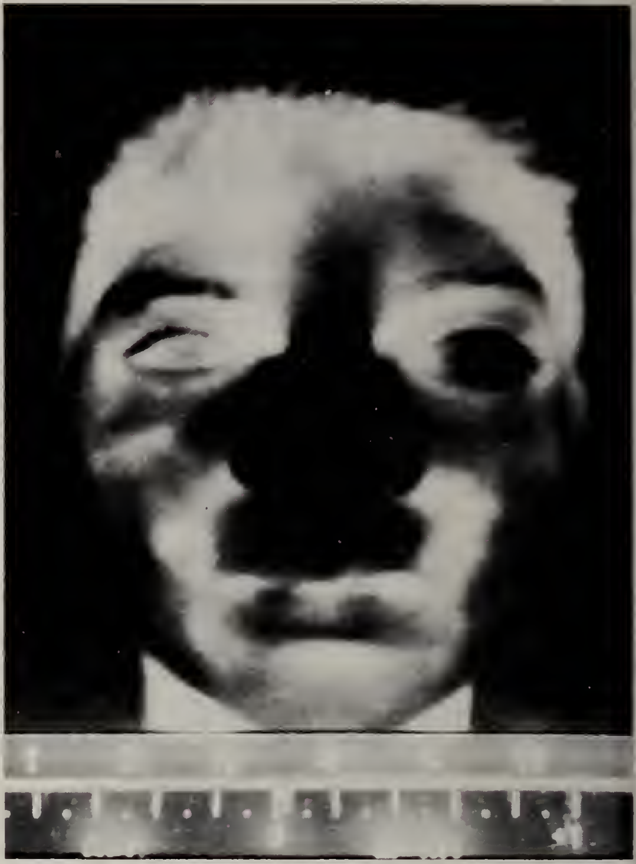

Fig. 2 Thermogram shows a dark area over the left supraorbital region, indicating that the skin temperature in this region is lower than in the corresponding right area.

Fig. 1 shows a normal thermogram of the head in the anterior projection. Black areas correspond to cold skin regions and white areas to hot ones. Intermediate gray shades indicate relatively cool or warm portions. At the bottom scale, the index mark points to four, which means that the dermothermogram machine has been preset so that the difference between the hottest (whitest) and coldest (blackest) area of the tracing is 4 degrees. The cold areas resulted from relatively weak emission of infrared heat. Typically, the nose, cheeks, ears and the avascular corneas are cool. The hair-insulated eyebrows, eyelashes and scalp also are cool. Heat is normally trapped by the skin folds at the canthi and the free margins of the eyelids. The patient had normal ophthalmodynamometry and carotid arteriograms. The heat pattern of the facial dermothermograph is attributed mainly to the blood supply by the external carotid artery. Surface display of the internal carotid artery is undertaken by the two terminal branches of the ophthalmic artery, i.e., the frontal and the supraorbital artery.[7]

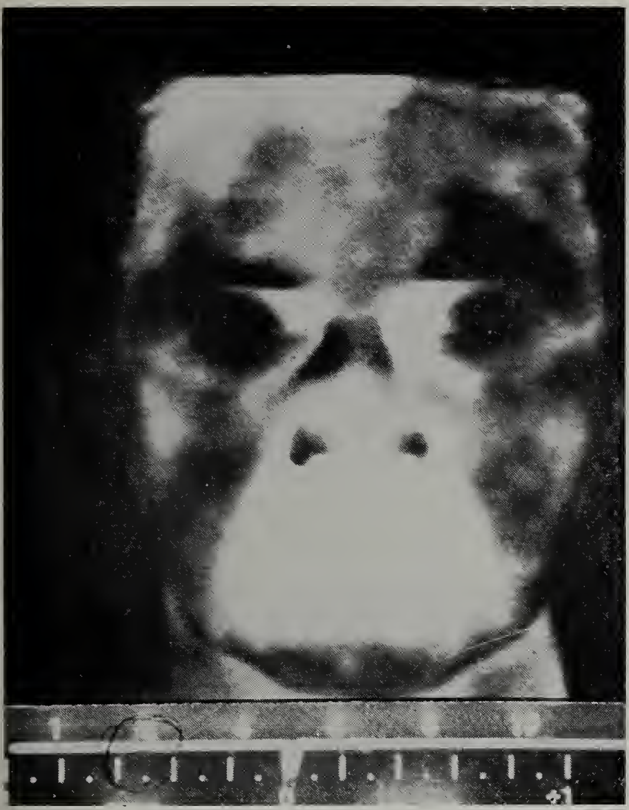

Fig. 3 Thermogram shows a relative difference in darkness between the two sides of the forehead. The left side appears darker.

Fig. 2 depicts the facial dermothermogram of a 64-year-old patient admitted to St. Louis University Hospital because of weakness on the right side. A definitely cool area is seen over the left supraorbital region. In sitting position, ophthalmodynamometry revealed a diastolic pressure in the central retinal artery of 40 mm Hg OD and 25 mm Hg OS. Arteriograms showed stenosis of the left internal carotid artery. It has been found that 50% to 60% of the vessel lumen must be blocked in order to have abnormalities detectable by facial dermothermograms. This is a somewhat smaller percentage than the average of 75% occlusion which is required for the appearance of clinical signs and symptoms of stroke.[7]

Fig. 3 represents the facial dermothermogram of a 58-year-old patient admitted to St. Louis University Hospital with the diagnosis of "grand mal" seizures. The darkness of the left supraorbital area is suggestive of poor left carotid artery circulation. Ophthalmodynamometry in sitting position showed centrol retinal artery diastolic presure as 35 mm Hg OD and 25 mm Hg OS. Carotid arteriograms were negative for abnormal findings. This is an example of a false positive which could result from an unknown factor such as the patient, unnoticed by the technician, wiping his forehead just before the test.

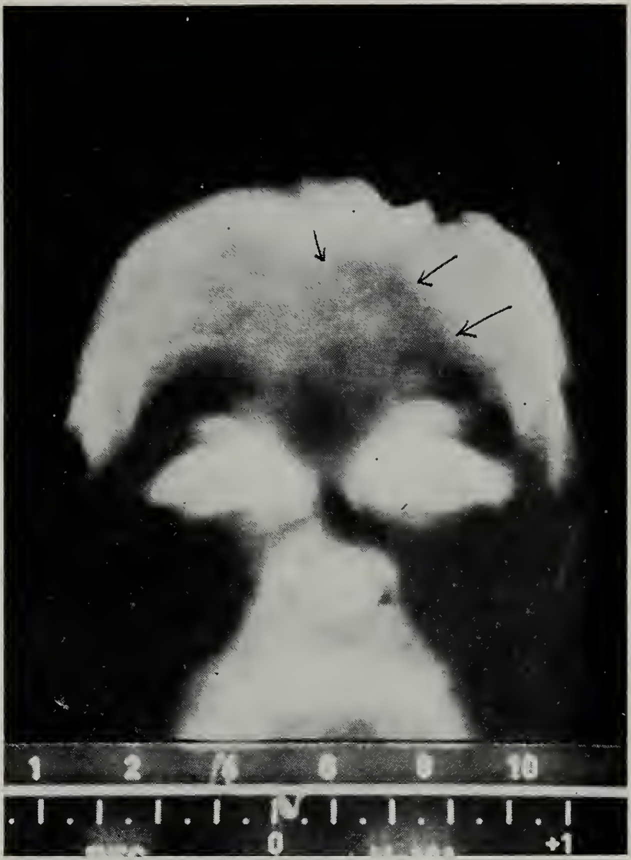

Fig. 4 Thermogram showing a dark area in the left supraorbital region *(see arrows)*. There is some minimal light-dark change on the right, also.

Fig. 4 is the facial dermothermogram of a 69-year-old patient who had three short attacks of cerebral ischemia within a month's period prior to admission. A tendency to fall to his right side was noticed. A slightly cool area is present at the left half of the forehead on the thermogram. Retinal artery pressures were equal. Arteriograms showed bilateral common carotid artery stenosis. Although paradoxical, it has been noted that in cases with the coexistence of occlusion of the internal carotid artery on one side and stenosis of the vessel on the other side, the cool area appears on the stenotic and not on the occluded side. This is attributed to differences in the collateral circulation. Where complete obstruction occurs, the development of retrograde blood flow from the external to the internal carotid artery is easier through the superficial temporal and internal maxillary arteries to the ophthalmic artery.[7]

The above examples are included to show that the technique is good for screening potential and actual stroke victims. Because of the false positive and false negative results, however, care

(Continued on page 745)

ALLEN L. GOLDSTEIN, M.D. *and*
CARL H. IDE, M.D., *Columbia*

Cyclocryotherapy for Secondary Glaucoma Due to Rubeosis Iridis

Case Reports

Previous investigators have shown that cryosurgery of the ciliary body can be used in the treatment of glaucoma.[1-4] Its effect in the management of secondary glaucoma due to rubeosis iridis, however, has not been reported. This study describes the clinical course following cyclocryotherapy in three diabetic patients with acute glaucoma secondary to rubeosis iridis.

Procedure

Since January, 1970, we have had three diabetics with rubeosis iridis and secondary glaucoma who did not respond to initial intensive treatment with osmotic, diuretic and miotic therapies. In order to relieve the pain and save the little vision remaining, cyclocryotherapy was performed.

Retrobulbar anesthesia was performed through the cutaneous route. The tip of the Dynatech cryoprobe was applied at a temperature of -70 C for 30 seconds to the conjunctiva, 4 mm away from the limbus. The tissue was then allowed to thaw. This was followed by reapplication of the probe over the same area from another 30 seconds. This procedure was repeated ten times over the inferior portion of the conjunctiva from the 2- to 10-o'clock position.

In cases of severe ocular pain due to rubeosis iridis, cyclocryotherapy should be considered. The authors present case reports of three diabetic patients with acute glaucoma secondary to rubeosis iridis who were treated with cyclocryosurgery. Preoperative pain did not occur in any of the three patients. Doctor Goldstein is a third-year resident and Doctor Ide is Associate Professor, Department of Ophthalmology, University of Missouri School of Medicine. This investigation was supported in part by the Lions Eye Tissue Bank of the University of Missouri.

Case Reports

Case # 1. A 21-year-old white woman with juvenile diabetes since age 6 was first seen in the emergency room complaining of pain in her left eye, decreasing vision and nausea and vomiting of four-days' duration.

At the time of admission, visual acuity in her right eye was 10/400 and in her left eye, hand movements at 5 feet. The intraocular pressures were RE: 12.6 mm Hg and LE: 94.3 mm Hg. The right eye had a grade I-II (Schaeffer) open angle with neovascularization. The fundus had multiple hemorrhages and exudates. In the left eye, marked conjunctival injection and corneal edema were noted. There was a moderate amount of neovascularization extending from the iris into the angle. The fundus was not visualized.

The remainder of the patient's physical examination was unremarkable. Laboratory studies done in the emergency room showed the following values: blood glucose, 132 mg/100 cc; sodium, 104 mEq/liter; potassium, 3.8 mEq/liter; CO_2 combining power, 27 mEq/liter; white blood cell count, 10,700/cu mm; hemoglobin 12 Gm/100 cc; and hematocrit reading, 36%.

The patient responded to 500 mg of acetazolamide and 350 cc of 20% mannitol administered intravenously and intensive treatment to the left eye with 4% pilocarpine. The next day, the intraocular pressure in the left eye was 12.2 mm Hg. She was maintained on a regimen of 2% pilocarpine to both eyes. The intraocular pressure in the left eye remained well controlled for another week. Then it rose to 80 mm Hg. Intensive intravenous treatment with acetazolamide, 20% mannitol and 4% pilocarpine to the left eye did not decrease the pressure below 30 mm Hg. On the 13th day of hospitalization, cyclocryotherapy was performed. Following this treatment, the ocular tension in the left eye stayed below 20 mm Hg for one month. Then, it rose again into the

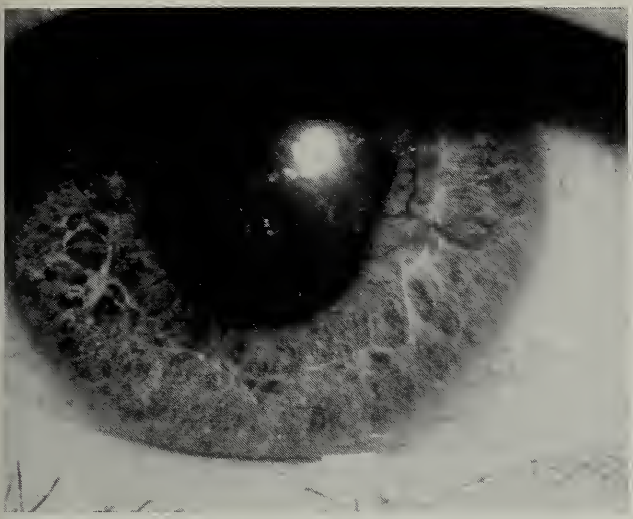

Fig. 1 Right iris (untreated eye) of second patient.

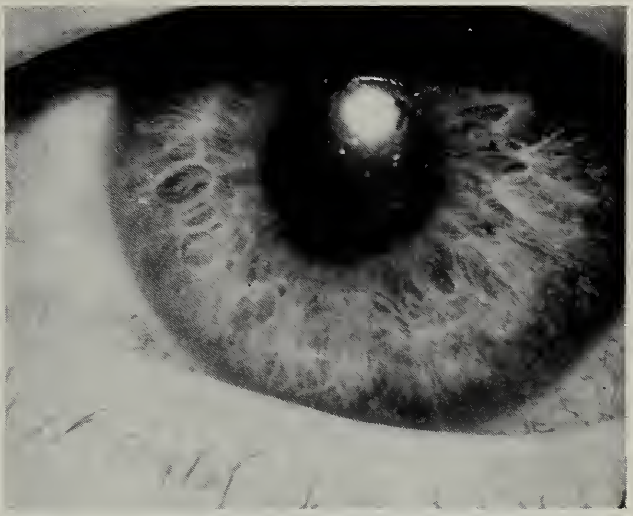

Fig. 2 Left iris of second patient.

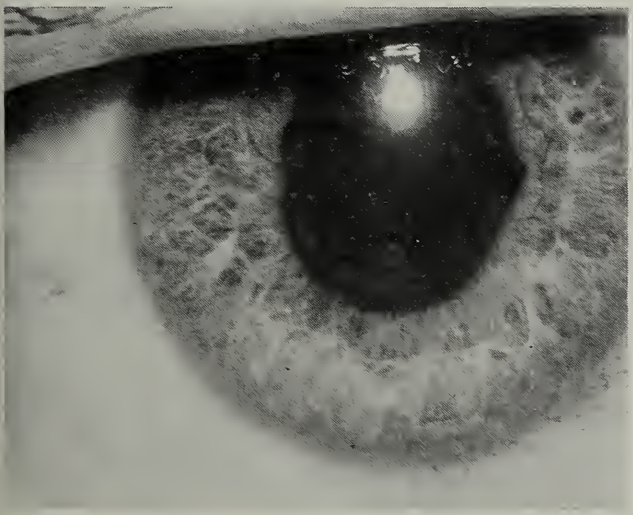

Fig. 3 Right iris (untreated eye) is essentially unchanged after four months.

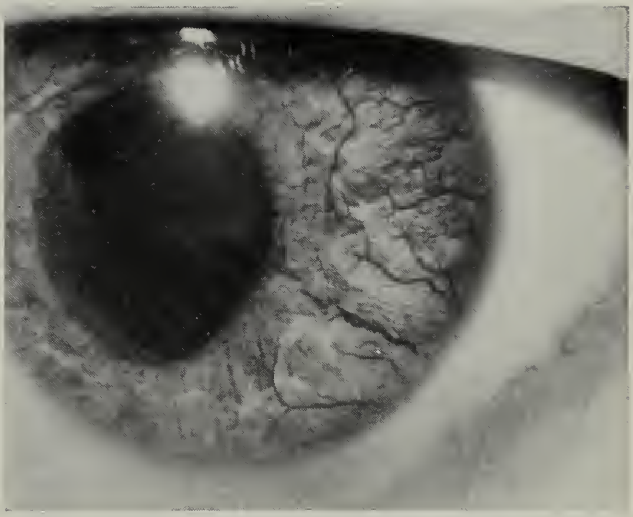

Fig. 4 Left iris reveals a marked increase of neovascularization four months after cyclocryotherapy.

60s, and the rubeosis rapidly advanced to the pupillary margin of the iris.

Case # 2. A 24-year-old white man with juvenile diabetes since age 9 was seen in the Eye Clinic with a one-day history of pain and photophobia in his left eye. The patient had had an unsuccessful sclerotomy elsewhere for angle closure glaucoma of the right eye six months prior to admission.

Vision was hand movement at 5 feet in the right eye and 20/400 in the left. Intraocular pressures were RE: 37.2 mm Hg and LE: 71.0 mm Hg.

There was moderate conjunctival injection and corneal edema in the left eye. Slit lamp examination revealed widely dilated pupils and a marked amount of neovascularization in the periphery of the irides extending into the angles. In the right eye, posterior synechiae were found. In the right fundus, many dot-blot hemorrhages and neovascularization temporal to the disc were seen. The left fundus was not visualized. The patient was treated with 140 cc of oral glycerol and topical 4% pilocarpine to the left eye. Two hours later, the ocular tension in the left eye was 17.3 mm Hg. He was discharged on a regimen of 500 mg of acetazolamide sustained release capsules to be taken orally twice a day, and 2% pilocarpine to be taken every four hours. At this time, possible treatment with cyclocryotherapy was considered. One week later, the patient returned complaining of pain in the left eye. He was readmitted for evaluation and control of the angle closure glaucoma. At the time of admission, the tension in the right eye was 20.6 mm Hg and 25.8 mm Hg in the left eye. The blood glucose value was 332 mg/100 cc and the blood urea nitrogen (BUN) was 19 mg/100 cc. The patient was given a trial of 4% pilocarpine every four hours and 500 mg of acetazolamide orally every six hours for one week. After the intraocular pressure had risen to 71 mm Hg, cyclocryotherapy was performed. Postoperatively, a small hyphema persisted for five days before clearing. The intraocular pressure remained at about 20 mm Hg for one month and then gradually rose into the 30s again. The rubeosis rapidly advanced to the pupillary margin (Figs. 1-4).

Case # 3. A 61-year-old white woman, a diabetic for at least 20 years, was seen in the Eye Clinic with a two-week history of pain and photophobia in the left eye. Visual acuity in the right eye was finger counting at 4 feet and in the left eye, hand movement at 6 feet. The intraocular pressure was 10.2 mm Hg on the right eye and 40.2 mm Hg on the left. Slit lamp examination in the right eye revealed a posterior subcapsular cataract. The anterior chamber angle was normal in appearance. A small hyphema was noted in the left eye. There was marked conjunctival injection and a moderate amount of neovascularization was noted at the periphery of the iris. The fundus was not visualized in either eye. The patient did not respond to intensive treatment with 4% pilocarpine in the left eye, 500 mg of acetazolamide every four hours and 150 cc of glycerol three times a day. Cyclocryotherapy was performed. Postoperatively, a fresh hemorrhage was noted in the anterior chamber. It cleared within two weeks. The ocular tension remained in the 40s for three weeks. With clearing of the hyphema, the intraocular pressure dropped to below 20, remained there for four weeks and then gradually increased into the 30s. The rubeosis increased rapidly in the periphery and at the pupillary margin with extension onto the lens.

In the first few postoperative days, all patients had considerable ocular pain which was relieved by use of miotics and analgesics. None has had a recurrence of the preoperative pain. There was no change in the appearance or in the ocular tension in the uninvolved eye.

The only major complication was an anterior chamber hemorrhage in two of these patients which cleared within two weeks.

Discussion

Outstanding among ocular complications in diabetics is rubeosis of the iris, the appearance of a network of newly-formed blood vessels on the anterior layer of the iris without associated inflammation. Salus,[5] in 1928, was the first to describe this condition and to give it the name rubeosis iridis, because he noted a resemblance to the vascular anomaly of the skin in certain young diabetics described by von Noorden in 1907 as rubeosis diabetica.

This neovascularization is observed in other diseases of the eye besides diabetes, such as central retinal vein thrombosis, central retinal artery occlusion, anterior uveitis, absolute glaucoma, retinal detachment, retrolental fibroplasia and malignant melanoma. It also is a feature of certain blood dyscrasias, such as leukemia, purpura, hemophilia, polycythemia vera and sickle cell diseases. In rare cases, it is even found in such types of vasculitis as temporal arteritis and Eales disease.[6]

The occurrence of rubeosis iridis in the diabetic population is relatively rare and is found in 0.2% to 6.6% of diabetics depending on the study.

Frequency			*%*	*Cases*
Armstrong	(1960)	=	0.2	393
Janert	(1957)	=	0.3	14/3750
Ohrt	(1960)	=	5.2	17/325
Palomar	(1956)	=	5.5	23/416
Streiff	(1956)	=	6.6	25/376

It is most frequent in those patients between the ages of 30 to 40 years who have diabetes of at least 15 years duration and associated retinitis proliferans or kidney disease. In 80% of the cases, the other eye is involved.

Previous investigators have found women to be affected in almost two thirds of the cases.[7]

In rubeosis, the new capillaries usually appear first around the sphincter of the iris. Later, they develop in the peripheral zone and invade the meshwork of the trabeculae by extension along the ciliary body and iris processes. However, there are cases in which the vascularization begins at the periphery and extends early to the iridocorneal angle. These newly-formed, thin-walled capillaries are contained in a transparent membrane which covers the anterior segment of the iris and extends into the chamber angle. The angle, therefore, becomes lined with a cuticular, transparent membrane containing thin-walled endothelial tubes. A glaucoma then develops which may belong to the group of cases which Reese has described as a cuticular glaucoma.[8] This type of glaucoma resists all kinds of treatment. Operation invariably leads to uncontrollable intraocular hemorrhages. Even strong miotics are apt to produce hyphema because when the iris is stretched, the cuticular membrane, which is not so resilient as the underlying iris tissue, ruptures along with the capillary tubes which it carries.[9]

In time, the periphery of the iris becomes adherent to the trabecular meshwork by proliferation of young fibroblastic tissue. This process gives rise to peripheral anterior synechiae and, eventually, acute angle closure glaucoma.

These vessels also may bleed and lead to hemorrhagic glaucoma. The prognosis, therefore, is always guarded. In rare cases, the rubeosis may remain stationary for many years without affecting ocular tension.[8]

It is important to note that congestion of the normal vascular network of the iris, when accentuated as in chronic glaucoma or diabetic iritis, may at first give the impression of rubeosis. This pseudorubeosis does not surround the pupil or invade the angle. If the tension is normalized, the vessels disappear or become attenuated and do not constitute a threat to surgery.[7]

Filtering operations aimed at removing the glaucoma usually are unsuccessful because of the hyphema produced during the course of the iridectomy or of the failure of a filtering cicatrix to develop. Cyclodiathermy sometimes makes it possible to avoid enucleation. In most cases, however, it does not work or may lead to phthisis bulbi.[10]

In 1950, Bietti introduced freezing of the ciliary body or cyclocryotherapy for the treatment of glaucoma. He treated 21 glaucoma patients with solid carbon dioxide directly over the ciliary body. In 57% of these eyes, the glaucoma was controlled and in 43%, the tension dropped only temporarily.[1] DeRoetth had almost identical results in 141 diabetic eyes.[4]

	Number of Eyes	*Intraocular Pressure* *Normal*	*Border Line*	*Elevated*
DeRoetth	141	80 (57%)	28 (20%)	33 (23%)
Bietti	21	12 (57%)	4 (19%)	5 (24%)

Previous investigators showed that the effect of freezing was reversible and related to a vascular action.[1–4, 11–14] Nervous elements and epithelial cells were particularly sensitive. Tonographic studies reported by Polack and DeRoetth[11] in 1964 demonstrated that hypotony of the globe following freezing of the ciliary body was due to a decrease in the production of aqueous. Following damage to the endothelium of large vessels and rupture of small capillaries, the ciliary processes began to swell. Large areas of nonpigmented epithelium were absent, and there was widespread fragmentation of the pigmented epithelial cells. Within one week, reparative changes begin. In about one month, the eye was completely healed except for an apparent hyalinization of some ciliary processes. This damage decreased the aqueous production and, consequently, the intraocular pressure was lowered. McLean and Lincoff[2] and Lincoff *et al*[12] found the optimum temperature to be −80 C. Application below −80 C resulted in phthisis bulbi. Wiesinger[3] and Edmonds[13] showed that more severe changes in the ciliary processes with resultant lowering of intraocular pressure could be produced with freeze-thaw-refreeze treatments.

SUMMARY

From our data, three conclusions were reached. First, cryosurgery is an effective method for eliminating ocular pain in diabetics when medical or surgical therapy is no longer effective. Second, the intraocular pressure is lowered only temporarily. Within two months, it returns to pretreatment levels (Table 1). Two of these patients are relatively young. Since they have a relatively normal circulation, it would not be surprising to find establishment of a functioning collateral circulation and regeneration of the injured ciliary epithelium. This may be the reason the tension-lowering effect lasts such a short time. The rise of the intraocular pressure may be overcome in the future by increasing the number of applications to one area, increasing the area subjected to freezing or decreasing the temperature. Third, rubeosis rapidly progresses after lowering of the intraocular pressure to normal levels. The stimulus to this may be the change in ocular tension, as Beasley[15] suggests. The local tissue anoxia in the ciliary body could also stimulate the formation of a collateral circulation from the major arterial circle in the iris.

TABLE 1

EFFECT OF CYCLOCRYOTHERAPY ON INTRAOCULAR PRESSURE

Patient	*Intraocular Pressure* BEFORE CYCLOCRYOTHERAPY (IN MM HG)	AFTER CYCLOCRYOTHERAPY 1 MONTH	*2 mos.*	*Final*
# 1	RE 37.2	50.6	43.2	28.0
	*LE 71.0	17.3	66.2	30.4 (8 mos.)
# 2	RE 12.6	5.9	6.4	11.2
	*LE 94.3	10.2	59.1	61.8 (5 mos.)
# 3	RE 10.2	15.9	15.9	14.6
	*LE 40.2	15.6	34.4	32 (4 mos.)

* Eye treated.

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Migrating Thrombophlebitis Associated With Genital Carcinoma

Case Report

This is a case report of a 48-year-old woman who was initially seen because of migratory thrombophlebitis. Examination revealed adenocarcinoma of the endometrium and an endometroid carcinoma of the right ovary. The author includes a review of the literature of the relationship of migratory thrombophlebitis with malignancy. Doctor Berg is in the private practice of medicine.

SINCE THE WORK OF TROUSSEAU[1] in 1877, it has been shown that migrating thrombophlebitis may point to an underlying malignancy. In more recent years, the association of ovarian carcinoma and thrombophlebitis has been recognized. A patient with this syndrome recently presented herself for examination and treatment.

CASE REPORT

A single white woman, age 48, was first seen on Jan. 26, 1971 with the complaint of pain in her left elbow due to thrombophlebitis of the median cubital vein. On Feb. 4, 1971, she complained of intermenstrual spotting which occurred during the preceding week. After three weeks, the patient noted pain in the left ankle, left calf and, later, right calf. In all of these areas, a thrombosed vein was palpable. Soon, the left foot and ankle began to swell. Just prior to admission to Incarnate Word Hospital on Feb. 12, 1971, she complained of pain due to a thrombosed vein at the left wrist. For two weeks preceding her admission, the patient had fever and nocturnal drenching sweats. Further questioning regarding her periods elicited the history that her periods had stopped in October, 1970. This was followed by a dribbling of blood in November. In December, there were three days of slight bleeding.

On physical examination, she was a thin, small woman with the above-mentioned areas of migrating thrombophlebitis. Her heart and lungs were within normal limits. Pelvic examination with one finger revealed an irregular mass in the cul-de-sac, which was larger on the right. The cervix felt and appeared to be normal. Rectal examination was negative.

The migratory phlebitis was a clue to the possible presence of underlying malignancy. Accordingly, a D & C was done on Feb. 19, 1971. The pathological report of the endometrium was adenocarcinoma. The description is as follows:

"Frozen section diagnosis of adenocarcinoma of endometrium was returned. Microscopically, sections show numerous glands which are back-to-back and some of which have dilated spaces. Many of the glands are poorly formed. Some areas show a squamous alteration suggesting adenoacanthoma. In some areas, the squamous change is immediately adjacent to glands, and in other areas, the squamous alteration achieves sheets of cells with some space formation within the squamous sheets."

On March 1, 1971, the radiologist inserted 50 mg of radium for a total dose of 3,425 mg hrs. The postradiation course was "stormy" due to nausea, pain in the extremities at the site of the thrombotic veins and swelling of the lower extremities. The patient was seen in consultation by an oncologist at whose suggestion a series of studies was initiated. These showed the following:

1. No fragmentation on peripheral smear.
2. A negative test for fibrinogen degradation products.
3. Fibrinogen value was 250 mgm % (normal 250-400 mgm %).
4. Three blood cultures proved to be negative.
5. L. E. Prep. negative on three successive days.
6. Platelet count of 150,000.

The patient was placed on a regimen of phenylbutazone (Butazolidin). During this time, the hemoglobin level was 10.2 gm/100 ml; hematocrit reading, 35%; white blood cell count, 14,000/cu mm with a normal differential; total blood protein, 7.4 gm/100 ml with a reversal of the albumin globulin ratio.

The patient gradually improved and was discharged on March 10, 1971. She was afebrile, but still with areas of thrombophlebitis. Following Reifenstein's[2] plan of therapy, the patient was given a course of 250 mgm of hydroxyprogesterone (Delalutin) intramuscularly for six weeks, and she reentered the hospital on May 26, 1971 for a hysterectomy. On May 27, 1971, a pan-hysterectomy was done. At this time, a malignant cyst was found in the right ovary.

The patient made an uneventful recovery and was discharged on June 11, 1971. A further course of Delalutin was given: it consisted of 250 mgm intramuscularly once weekly for six weeks. In July, 1971, the patient noticed a slight amount of urinary bleeding. An intravenous pyelogram and cystoscopy were negative except for marked hyperemia of the bladder mucosa thought to be due to radiation effect. When seen in August, 1971, she had returned to work, her veins were restored to normal and the abdominal and vaginal examinations showed no palpable residual tumor or fluid.

Comment

In 1955, P. H. Henderson[3] reported a case of multiple migratory thrombophlebitis associated with ovarian carcinoma. He suggested that a substance with thromboplastin activity might be the cause of thrombosis in all cancers. This was the third case reported to that time. The first had been reported by Stahl and Stephan[4] in 1947; the second by Womack and Castellano[5] in 1952. Prior to that time, the often-quoted work of Sproul[6] showed the frequent association of thrombophlebitis with cancer of the pancreas and other organs. One of the earliest reports showing this relationship was that of Trousseau[1] in 1877. Since that time, numerous papers have shown that the physician must at least be alerted to thinking of underlying malignancy in the presence of migrating thrombophlebitis.

In a series of 1,000 consecutive cases of thrombophlebitis, Carter[7] found 18 instances of visceral cancer; the cervix was involved in four cases and the ovary in one case. P. A. Lamis[8] cites a study at New York Hospital, Cornell University Medical College, in which 1,400 cases with venous thrombosis were reviewed. The incidence of cancer complicating thrombophlebitis was 2.1% to 3%. A similar percentage was found in 979 cases at Boston City Hospital.[9] Lamis stressed the fact that the development of thrombophlebitis did not preclude a cure of the associated malignancy. However, a less hopeful picture has been presented by A. W. Diddle,[10] who reported a study of 1,217 women with various kinds of genital carcinoma. Forty-three had thrombophlebitis. All but four had died at the time of this reporting. This author mentions, as others also had noted, that anticoagulant therapy of phlebitis associated with neoplasia is usually ineffective.

Recently the reports of Miller and Davidson[11] and of Mosesson, Colman and Sherry[12] have shed new light on at least one manifestation of this problem. They have shown that chronic intravascular coagulation associated with hemorrhages responds to heparin. It appears that, in some instances, there is a tendency to intravascular thrombosis resulting in the deposition of fibrin and, at the same time, there is an exhaustion of the coagulation factors leading to bleeding. In the patient reported by Mosesson, Colman and Sherry, this syndrome preceded the appearance of the primary ovarian carcinoma by ten months. A plasma cryoprecipitate (cryofibrinogen) was constantly present.

Some comment as to the nature of ovarian neoplasia is in order. The tumor of the ovary was classified as an "endometroid adenocarcinoma." The microscopic pattern of this tumor often resembles quite closely the appearance of adenocarcinoma of the endometrium.[13] The importance of a careful diagnosis lies in the fact that the prognosis is better than that reported with serous or mucinous adenocarcinoma. In fact, Santesson[14] has reported a cure rate of 61.8% after five years.

Conclusions

1. In the presence of migratory thrombophlebitis, the physician must at least think of underlying malignancy.
2. This thrombotic process may precede the appearance of the malignancy by several months.
3. A plasma cryoprecipitate (cryofibrinogen) has been shown to be the underlying factor in at least one case.
4. The presence of the thrombotic process does not necessarily preclude a cure.
5. As far as can be found, this is the first case of endometroid carcinoma of the ovary associated with migratory thrombophlebitis.

Acknowledgements—The author wishes to express appreciation to Dr. C. M. Witt, who supervised the radiotherapy; Dr. R. J. Patrick, who interpreted the tissue studies; and Dr. A. J. Squitieri for his suggestions regarding medical management.

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Congenital Asplenia With Bilateral Right-Sidedness and Normally Related Great Arteries

Case Report

The association of asplenia with cyanotic congenital heart disease and abdominal heterotaxia has been documented by many authors.[1–18] One hundred and forty-five cases have been reported in the literature.

The interesting and unique feature of this syndrome is the strong tendency toward symmetric development of a number of normally asymmetric organ systems.[17] Symmetric development of the lungs and the tracheobronchial tree is most common; two superior vena cava, two right atria, two sinoatrial nodes and an isomeric liver also can be found frequently in asplenia syndrome. Although in this syndrome the cardiac anomalies are complex and multiple, they tend to follow a certain pattern. The most common associated lesions are transpositions of the great arteries, pulmonary valve atresia or severe stenosis, persistent common atrioventricular canal and anomalous pulmonary venous drainage.[14, 16, 17] Recently, we treated a patient with asplenia with bilateral right-sidedness, a common ventricle, normally-related great arteries and severe pulmonary valve stenosis.

Case Report

The patient was a 4½-year-old white boy who had had marked generalized cyanosis since birth. The child was born at full term and after an uncomplicated pregnancy and delivery.

A number of chest x-rays taken during the life of the patient showed the presence of dextrocardia

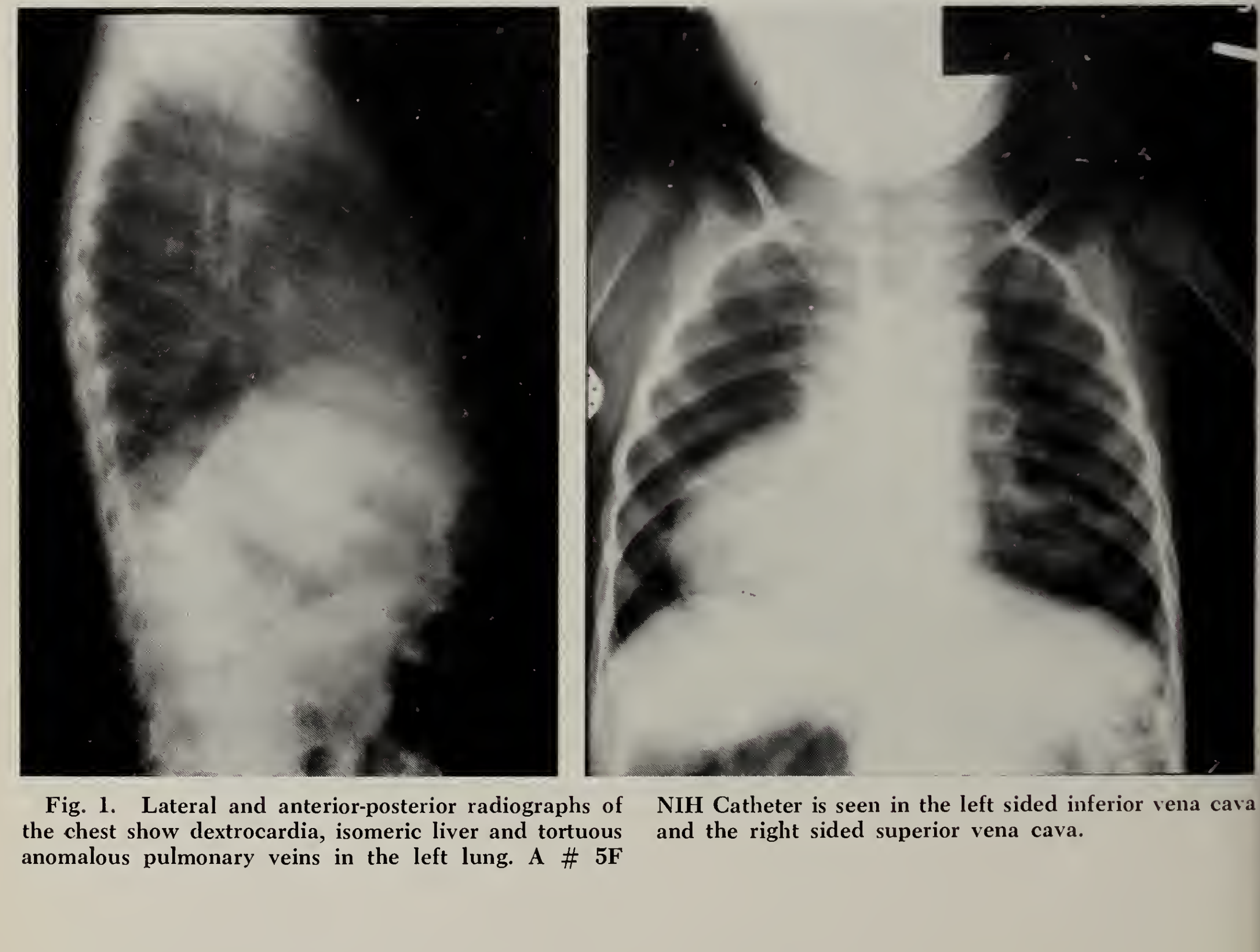

Fig. 1. Lateral and anterior-posterior radiographs of the chest show dextrocardia, isomeric liver and tortuous anomalous pulmonary veins in the left lung. A # 5F NIH Catheter is seen in the left sided inferior vena cava and the right sided superior vena cava.

(Fig. 1) with the stomach bubble in the center of the upper epigastrium. The liver was filling both right and left sides of the upper epigastrium. Cardiac catheterization performed at 4 weeks, 3 years and 4 years of age were all incomplete because of atrial tachycardia and ventricular flutter with minimal manipulation of the catheter in the right atrium and ventricle. However, the three catheterizations revealed free communication between the two atria and evidence of severe pulmonary stenosis.

The patient was severely cyanotic and in congestive heart failure for which he was treated with digitalis and repeated phlebotomies. Repeated EKGs revealed RAH and LVH. Numerous Howell-Jolley bodies were found on the blood smear. An aortic pulmonary shunt (Waterston shunt) was performed at age 3 years, but it did not seem to function for more than a few weeks. Another attempt was made at age 4½ years to perform a Waterston shunt, but the patient developed a complete heart block and then cardiac standstill during the dissection for the shunt procedure.

Autopsy findings: There were no spleen or any splenic tissue anywhere in the abdomen. The stomach was in the center and the liver was symmetrically enlarged, but the right lobe was the larger part. There were two three-lobed lungs (Fig. 2) and a common atrium with two right atrial appendages. A common atrioventricular valve and a large common left ventricle with a rudimentary right ventricular outflow communicating with the left ventricle were present. The pulmonary valve was severely stenotic, bicuspid, anterior and to the left of the aortic valve (normally related).[18] The cardiac apex was to the right (dextrocardia) and there were two inferior vena cavae (one is a common hepatic vein). There

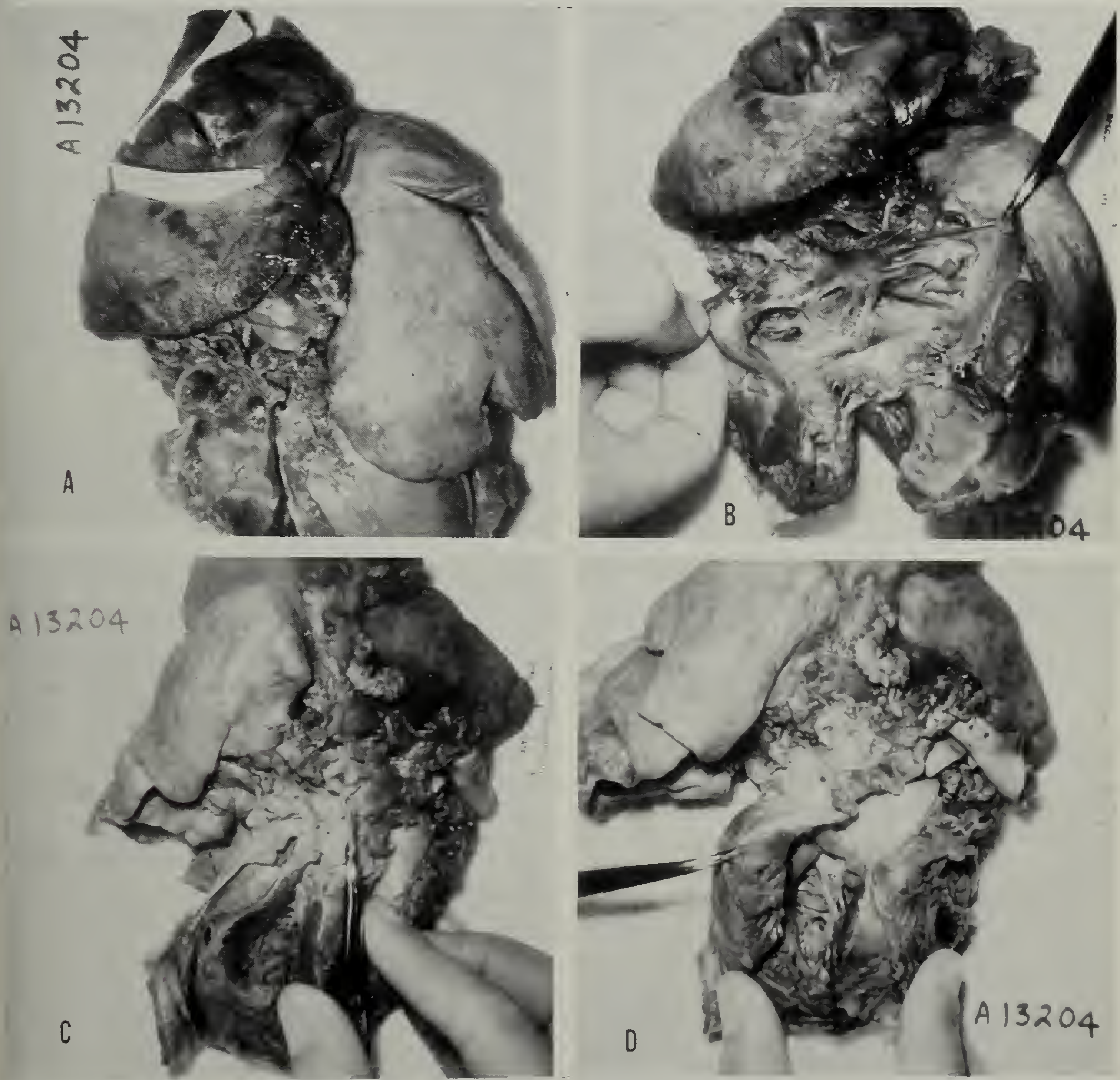

Fig. 2. (A) Bilateral three lobed lungs. (B) Common atrium with two right atrial appendages. (C) Severely stenotic bicuspid pulmonary valve arising from a right ventricular infundibulum. (D) Large aorta with a tricuspid aortic valve arising from the single (common) left ventricle.

Symmetric congenital cardiac anomalies are frequently associated with asplenia syndrome. Normally-related great arteries associated with this syndrome may not be as rare as initially reported. Although many physicians consider these patients inoperable, the authors believe that a shunt operation is recommended in the presence of decreased pulmonary blood flow. Doctors Lababidi and Stoeckle are Pediatric Cardiologists in the Department of Pediatrics and Doctors Hopeman and Almond are Thoracic and Cardiovascular Surgeons in the Department of Surgery, University of Missouri Medical Center.

were two superior vena cavae and a total anomalous pulmonary venous drainage to the left superior vena cava. There was an enlarged aorta with a left aortic arch.

Discussion

Although the syndrome of asplenia is not common, it is by no means as rare as has been thought. In 1826, Martin[1] first described the syndrome of asplenia with congenital heart disease. Since then, this syndrome has been reported with increasing frequency. Of the total of 145 reported cases, 112 have been described since 1950, indicating that more cases are being recognized.

In 1955, Putch and Marion[10] reviewed 77 cases of asplenia, among which were 53 cases with congenital cardiac lesions. Ivemark[6] reported 69 cases of this syndrome, 14 of which were his own. Ruttenberg[16] reviewed those two large reviews and found that many cases were common to both series.

Because of the cardiac and abdominal malpositions in asplenia, Ivemark[6] suggested that the malformations were secondary to early arrest in the development of these organs during the fifth or sixth week of gestation, at which time the analage of the spleen, the endocardial cushion and the conotruncal area develop. Towers and Middleton,[9] however, reasoned that since venous abnormalities occurred in their patients, the process must start in the 24th to 27th day of postovulotomy embryogenesis.

In the typical case of asplenia, there is bilateral right sidedness: each lung has three lobes (two right lungs)[17] and the liver is large and transverse, as if there were two right lobes.[16, 17] The right and left atrial chambers have been shown to have the anatomic characteristics of a right atrium[17] so that there are actually two right atria. Because of the anatomical two right atria, there frequently are two superior vena cavae, and there is anomalous venous drainage because of the absence of a left atrium.[17] About one half of the cases reviewed by Ruttenberg[16] had common atrial and ventricular chambers (cor-bilocular).

When the ventricular septum is absent, giving rise to the condition, common or single ventricle, an infundibulum is present at the base of the common ventricular chamber. When the infundibulum lies in the approximate position of the right ventricular infundibulum of a normal heart, the term common ventricle with noninversion of the infundibulum is used.[18]

More than 90% of Ivemark's cases had transposition of the great arteries. Gilbert *et al*[14] reported a distinctly lower incidence (67%) of transposition of the great arteries than did Ivemark.[6]

Summary

A case of congenital asplenia with abdominal heterotaxia, atrial isomerism, bilateral three-lobed lungs and a single left ventricle with pulmonary stenosis and normally related great arteries is described. The presence of normally-related great arteries in asplenia syndrome may be higher than was reported in the past. Attempts at complete cardiac catheterizations and angiographic studies were repeatedly thwarted by severe cardiac arhythmias.

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Dermothermography as a Diagnostic Aid

(Continued from page 735)

must be taken in interpretation of the cause of the facial temperature asymmetry.

Summary

A review of dermothermography and its application to diagnosis of carotid artery disease is presented. The usefulness of the technique as a screening test and as a test which a well-trained technician can do is discussed.

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Cyclocryotherapy for Secondary Glaucoma

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Migrating Thrombophlebitis

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JOHN F. SIMONDS, M.D., *Columbia*

Physical Symptoms Without Organic Basis In Children: Modeling Relationships

As a consequence of my experience as child psychiatric consultant to the Pediatric Inpatient and Outpatient Department at the University of Missouri Medical Center, I became aware of a group of pediatric patients who presented with physical symptoms without physical findings. Many of the patients tended to imitate symptoms of certain family members. In order to clarify this impression, I studied the medical records retrospectively.

This paper summarizes the information obtained from clinical interviews, medical and family histories and progress notes. Some information, such as age, sex, sibling position and the history of family illness, was easily obtained. Factors such as environmental stress, secondary gain and emotional symptoms had to be extracted from the written communications of physicians, nurses, psychiatrists and social workers. The data confirmed the impression that some of the children's physical symptoms closely resembled symptoms and diseases reported to have occurred in family members.

During a one-and-one-half-year period, the Pediatric Department requested a child psychiatric consultation for 74 patients. The 26 (35%) patients who make up the study group had physical symptoms which were determined not to be organic. I interviewed each patient at the time of consultation in order to evaluate his mental status. A social worker or pediatric resident or both interviewed the family members. The information obtained from the interview was sufficient to establish a tentative diagnosis and working formulation of conflicts and stress factors. Appropriate recommendations were made as needed to correct the environmental stress, to counsel the parents or to refer the child to a mental health agency for further treatment following discharge from the center.

These patients had several common characteristics. They all presented diagnostic problems to the pediatricians and, consequently, received extensive medical evaluations. When the medical workup failed to explain the symptoms, the patients were referred for psychiatric consultation. The most common presenting symptoms were subjective reports of severe and incapacitating pain. This type of complaint is generally regarded as hypochondriacal. Less frequently, the patients demonstrated loss of body function, which is commonly diagnosed as a conversion reaction. Symptoms of dissociation, anxiety and depression also were present in varying degrees and combinations. I will not discuss the confusing criteria for making particular psychiatric diagnoses. For the purpose of my study, any patients whose prominent physical symptoms did not have proven organic basis were included in the survey regardless of the psychiatric diagnosis. This article will focus on the relationship of the child's physical symptoms to similar symptoms in other family members and the child's past experiences of illness or injury.

Description of Study Group

The study group was comprised of 15 girls (57.7%) and 11 boys (42.8%) with a mean age of 12.8 years and an age range from eight years to 15 years. All patients were white except for one Negro girl who lived with relatives following the death of both parents. Otherwise, all natural mothers were living and their mean age was 38 years. The mean age of 22 natural fathers and three stepfathers was 45 years. Two mothers had divorced without remarrying, while three mothers had divorced and remarried. Family size ranged from one child to 12 children with an average of 4.4 children per family. The patient's ordinal position in the family varied; seven patients (27%) were the youngest, six patients were the only child.

Since the Medical Center primarily served rural communities in Central Missouri, it was not unexpected to find that 23 families lived in communities with a total population of less than 5,000. Farming was the primary occupation of ten families (two of which were Amish). Most of these families could be considered middle-to-low income families. Two families were receiving Aid for Dependent Children.

Physical Status

Results of physical examinations of 23 of 26 patients were completely normal. Two other patients had systolic heart murmurs of no medical significance. The only significant physical findings occurred in a child who had mild cerebral palsy with neurological signs. One patient, with a normal physical examination, had a diagnosis of diabetes mellitus under good control. Four other patients, with normal physical examinations, were known to have the following conditions as a result of previous studies: spina bifida, congenital double ureter, mild astigmatism and temporal lobe epilepsy. In no patient were the presenting symptoms related to any of the abnormal physical or laboratory findings.

Psychological Symptoms

All the children experienced emotional distress which could be traced to environmental stress, situational conflict, parental attitudes or parental management. However, specific stress patterns common to all patients could not be identified. School problems created stress for nine children. Overprotective attitudes could be identified in seven mothers, while excessive strictness was a pattern found in eight families. Excessive dependency found in 12 patients seemed to be related to the overprotective behavior of mothers and the youngest sibling position.

Psychological symptoms were identified in all patients. Nineteen of 26 patients manifested significant anxiety or depression at the time of interview. The author regarded subjective reports of pain occurring in 22 patients as hypochondriacal symptoms. Nine patients were diagnosed as having conversion reactions. In seven of these nine, hypochondriacal symptoms also were present. Ziegler[1] suggested that the pain syndrome was a disguised appeal for help as well as a conversion of affective problems into face-saving physical problems. Other psychological symptoms were "la belle indifference," which was present in four patients, and visual hallucinations, which were reported by one patient who was diagnosed as having "conversion neurosis." Five patients displayed mild behavior disorders.

Secondary gain was identified in all patients in the present study. Fifteen patients utilized their physical symptoms to avoid attending school. Many times, the symptoms brought the children extra care, comfort and attention. Some children who felt burdened with chores and responsibilities at home effectively lessened their duties by complaining of pains or manifesting difficulty with walking.

A series of 26 pediatric patents, who were referred for psychiatric consultation, demonstrated physical signs and symptoms without proven physiological cause. This survey suggests that the children were imitating similar symptoms in family members. The author cites the psychological causes and suggests that the physician is in a unique position to influence his patients in attaining positive attitudes toward health and disease. Doctor Simonds is from the Department of Psychiatry, Section of Child Psychiatry, University of Missouri School of Medicine.

Physical Symptoms: Interrelationships

Seventeen patients complained of pain in a body region, usually the abdomen (ten patients). Other symptoms were headaches, 12; blackouts, six; visual disturbances, four; gait disturbances, four; paresthesias, two; muscle weakness, one; convulsion, one; dysphagia, one; and anorexia, one. Some patients had more than one major complaint. The patients' complaints were compared with illnesses and symptoms of family members (Table 1). No differentiation was made between real illness, conversion symptoms or hypochondrical symptoms in these family members since it was doubtful that the children had made this differentiation. In 11 children, there was an indirect relation between the child's symptom and the family member's symptom: the child's symptom was not the same, but it referred to the same anatomical region as the family member's illness. Thus, a child identifying with his father's illness complained of chest pains when he became aware of his father's chronic heart disease. Often the child's concepts of particular illnesses were concrete and simplistic. A total of 21 children (80.8%) had at least one family member who had a disease or symptom similar to the patient's symptom. Some family members had serious, proven physical conditions such as stroke, epilepsy or brain tumor. Others had suspected but not proven disease, such as "heart trouble." Still others had minor illnesses, such as the "flu syndrome." The family members who served as models for the child's symptoms were mothers, 12; fathers, seven; brothers, two;

TABLE 1

RELATIONSHIP OF PATIENT'S PHYSICAL SYMPTOM TO FAMILY MEMBER DISEASE-SYMPTOM OR PATIENT PAST-HISTORY

Patient	*Prominent Patient Symptom*	*Family Member: Symptom-Disease*	*Patient Past History: Symptom-Disease-Injury*
# 1	Blackout	None	None
# 2	Headache	Epilepsy (M)	None
# 3	Muscle pains	Muscle pain, flu (M&F)	Flu
# 4	Blackout	None	None
# 5	Convulsion	Convulsions, Epilepsy (GM)	None
# 6	Chest pain	Heart disease (F)	Chest injury, Mis Dx enlarged heart
# 7	Back pain	Back pain (M)	Back injury
# 8	Abdominal pain	None	Flu
# 9	Abdominal pain	Abdominal pain (M)	Appendectomy, double ureter
# 10	Headache	Headache (B)	None
# 11	Abdominal pain	Abdominal pain (F)	Abdominal injury
# 12	Shortness of breath	None	Chemical pneumonitis
# 13	Chest pain	Lung disease (F) Heart disease (M)	Mis Dx rheumatic fever
# 14	Leg pain	Stroke with leg paralysis (F)	None
# 15	Abdominal pain	Peptic ulcer (M)	Appendectomy, fall on abdomen
# 16	Abdominal pain	Gall bladder disease (M)	Flu
# 17	Blackout	Blackout, brain tumor (GM)	None
# 18	Abdominal pain, blackout	Blackout (M&B)	Mis Dx peptic ulcer
# 19	Headache, gait disturbance	Headache, gait disturbance (M)	Head injury
# 20	Headache	Headache (M)	Frequent URI
# 21	Joint pain	Gout (M)	Mis Dx rheumatic fever
# 22	Abdominal pain	None	GI parasites
# 23	Headache	Headache (S)	Head injury
# 24	Chest pain	Heart disease (M&F)	None
# 25	Dysphagia	Enlarged thyroid (A)	Mis Dx thyroid disease
# 26	Anorexia	Obesity (F)	Obesity

KEY: M—Mother, F—Father, GM—Grandmother, S—Sister, B—Brother, A—Aunt, Dx—Diagnosis, Mis Dx—Misdiagnosis.

grandmothers, two; sister, one; aunt, one (a total of 25 because in four families, two members served as models).

The literature concerning the modeling relationship between children's nonorganic physical symptoms and similar symptoms in adults is sparse. Richards,[2] reporting on the life histories of 22 children with hypochondriacal symptoms, found that 95% grew up in homes where parents complained of somatic symptoms. Levy[3] stressed the importance of the child's identification with illness in others. In Jensen's[4] study of 16 children with conversion reactions, there was significant parental ill health in nine families. Kanner[5] found that 53% of the 145 hypochondriacal children studied at the Harriet Lane Hospital had hypochondriacal parents. He also thought that the symptoms of actual illness in parents could be imitated by the hypochondriacal child. Mary Preston,[6] in 1940, reported on a series of 100 children who had physical complaints without organic basis. In her opinion, the physical symptoms were an attempt to better a stressful situation. She concluded that physical symptoms were repetitions of symptoms of the child's previous illnesses or operations as well as imitations of relative's symptoms.

Relevant past illnesses, injuries and operations in the child's life were compared with the presenting symptoms (Table 1). Eighteen children (69%) had a separate incidence of symptoms similar to their past experiences. Six children had symptoms in body regions where they had previously been injured (despite complete healing) and six children had symptoms in body regions which had required surgical operations. Accurately-diagnosed prior medical diseases from which there was complete recovery related to present symptoms in five patients while inaccurately-diagnosed prior medical conditions related to symptoms in five other patients. The erroneous diagnoses included rheumatic fever, two; peptic ulcer, one; enlarged heart, one; and hypothyroidism, one. Related symptoms began to develop after the diagnosis was made.

Kanner[5] commented in his textbook that "the child's own experiences may supply him with a pattern" as a result of the way in which his parents treat him at the time of illness or injury. The doctor, he stated, could fixate a physical complaint by mismanagement, faulty diagnoses and unnecessary prescription of medicine and prolonged rest. Preston[6] also concluded that children could imitate previous illness as well as the suggestions of illness.

Discussion

The survey suggested that children seen in pediatric wards and clinics, who have undiagnosed physical symptoms, may be imitating similar symptoms in family members. The family member might be said to serve as a "model" for the child. In this study, 21 children had symptoms related to the symptoms of family members and 18 children had symptoms related to their own past experiences of illness or injury. There were 15 (57.7%) children with both a family-member model and a past-experience model and 24 (92.3%) children with either a family-member model or a past experience model.

I suspect that if the identification concept is valid, we can expect normal children to demonstrate modeling to the extent that they should report minor symptoms related to their parents' symptoms. If children do identify with parents' complaints, what causes their development of exaggerated complaining and loss of physical functions? I think the family techniques of responding to the child's complaints probably determine the degree of complaining as well as the repetition of symptoms for secondary gain. There are certain children who are constitutionally more intense than other children and are prone to complain about minor aches and pains. There also are some parents who are less tolerant of complaining children. These parents probably would seek out the physician for diagnosis and treatment of the child's minor physical problems. The child would learn to utilize physical symptoms to manipulate his parents. When a child in certain predisposed families experiences his first medical illness or injury, he is likely to enjoy the response from his parents (exaggerated attention) and may seek to repeat the experiences in the future. Further studies on family reaction to illness and physical symptoms are indicated.

If aware of the possibility of modeling, both the psychiatrist and the pediatrician can structure their history taking in order to elicit illnesses of family members that might otherwise be overlooked. The interview with the child should include an evaluation of health attitudes. The modeling concept emphasizes the need to include family members in the treatment plan. Parents should be counseled so that they are aware of the effect of their symptoms on their children. In order to avoid secondary gain, the family members need to change their response patterns to their children's physical symptoms, encouraging health rather than illness. Children may express their distress through physical symptoms, particularly in families in which verbal expression is not practiced. More open discussion of feelings between family members may help diminish physical complaining in such families. If there are environmental factors that are precipating physical complaints, the family can be directed to the appropriate social agencies.

The physician is in a unique position to influence his patient's attitudes toward health and disease. His direct advice and recommendations, as well as his casual remarks, will affect parental management of children's symptoms. A physician's doubts about borderline findings may cause parents to perpetuate illness in their children. The physician encourages good health attitudes by being frank about physical illness and more definite about health.

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Special X-ray Exhibit

SIDNEY RUBIN, M.D., RODGER LAMBIE, M.D. *and*
EDWIN HERMAN, M.D., *Kansas City*

Radiologic Problem Case

The authors of this series of articles presenting unusual radiologic problem cases are from the Department of Radiology, Menorah Medical Center, where Doctor Rubin is Chairman.

A 17-YEAR-OLD BOY was admitted through the emergency room after being involved in an automobile accident in which he received blunt trauma to the left side of his chest and abdomen.

Physical Examination: The patient was acutely uncomfortable and in moderate distress. His blood pressure was 102/60; respiration rate, 20; pulse rate, 112; and temperature, 99.0 F. There was tenderness in the left upper quadrant on direct palpation.

Laboratory Data: Upon admission, complete blood cell count, urinalysis and serum electrolytes were all within normal limits.

Radiologic Examination: The chest X-ray (Fig. 1) revealed slight blunting of the left costophrenic sulcus with no evidence of rib fracture. Plain film of the abdomen, as well as "coned down" examination of the left upper quadrant (Fig. 2), demonstrated haziness about the in-

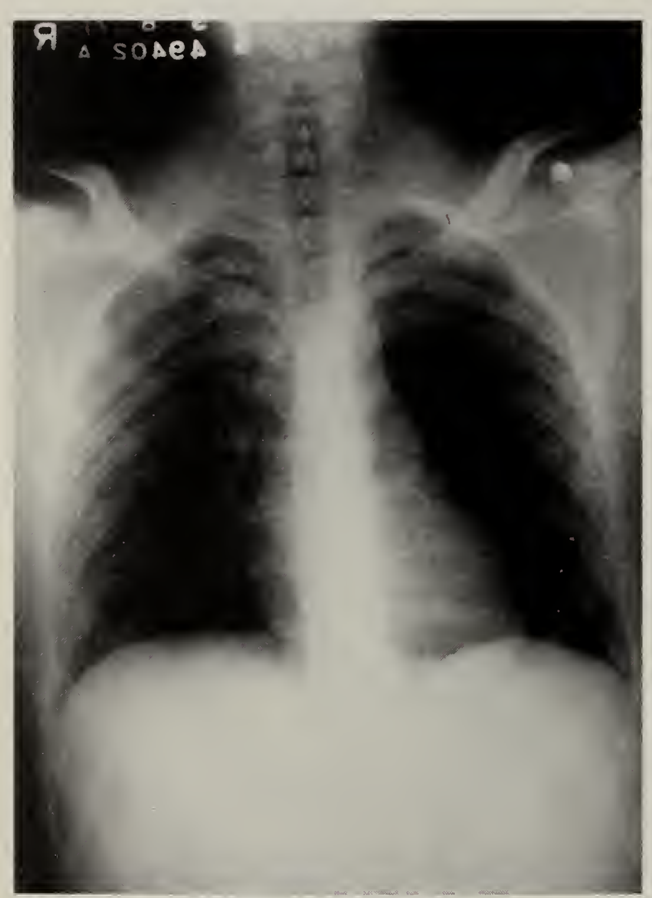

Fig. 1 Slight blunting of the left costophrenic angle is noted.

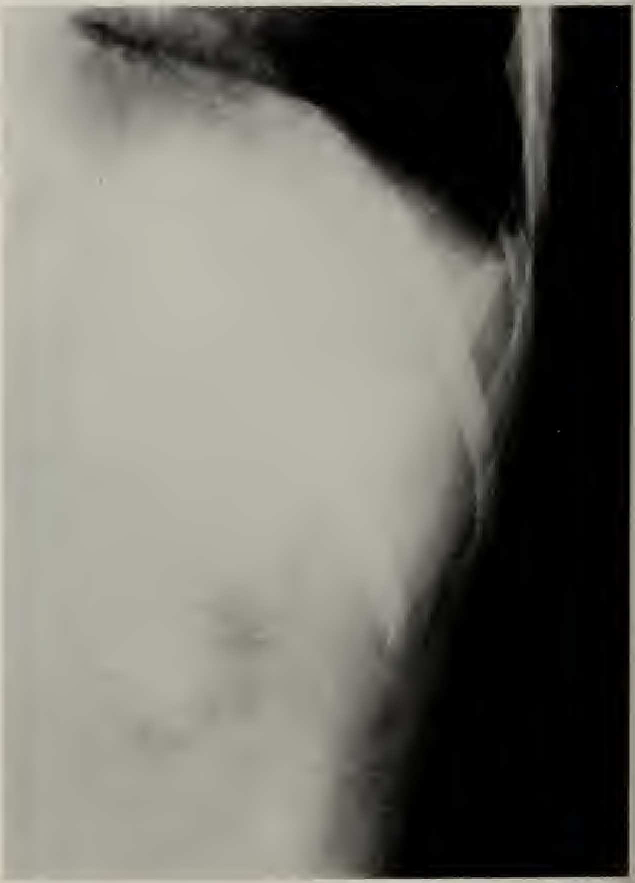

Fig. 2 No rib fracture is demonstrated. There is haziness along the inferior splenic border. Note loss of preperitoneal fat line.

ferior border of the spleen with loss of the preperitoneal fat line in the left flank. Repeat abdominal films demonstrated similar findings. Splenic scan (Fig. 3) with technetium sulfur colloid revealed a defect in the hilar region of the spleen suggesting splenic tear with hemorrhage.

Radiographic Diagnosis: Splenic rupture.

Hospital Course: The patient's vital signs and hemoglobin level remained stable for the first 12 hours following admission. The hemoglobin level then began to drop, the pulse rate increased and abdominal tenderness became more marked. With the clinical and radiographic picture as presented, the patient was taken to the operating room. An exploratory laporatomy revealed laceration of the spleen at three contiguous points in the splenic hilar region. A splenectomy was performed; the patient tolerated the procedure well. On the first postoperative day, the hemoglobin level again began to drop. The pulse rate was quite rapid (120) and the blood pressure was falling (90/60). The patient was returned to surgery where two small gastric vessels were noted to be actively bleeding. Following surgical correction, the patient made an uneventful recovery. He was discharged from the hospital eight days after surgery.

Pathologic Diagnosis: Spleen with ruptured capsule and lacerated parenchyma with hemorrhage consistent with recent trauma.

Discussion

The spleen is the most frequently injured intraperitoneal organ and, thus, must always be closely observed following blunt abdominal trauma, as well as trauma to the left lower thoracic cage. Most splenic ruptures can be diagnosed on physical examination with the aid of plain chest and abdominal X-rays. Paracentesis may be quite helpful.[1]

One may note pleural reaction at the left costophrenic sulcus, and in approximately 40% of the cases, associated rib fractures can be demonstrated.[1]

The outline of the spleen may be indistinct and, as in the case presented, there may be loss of the normal preperitoneal fat line. Most frequently, the hemorrhage is intraperitoneal, thus accounting for the haziness and loss of normal fat line. The perirenal fat and psoas shadow are intact unless associated retroperitoneal injury is present.

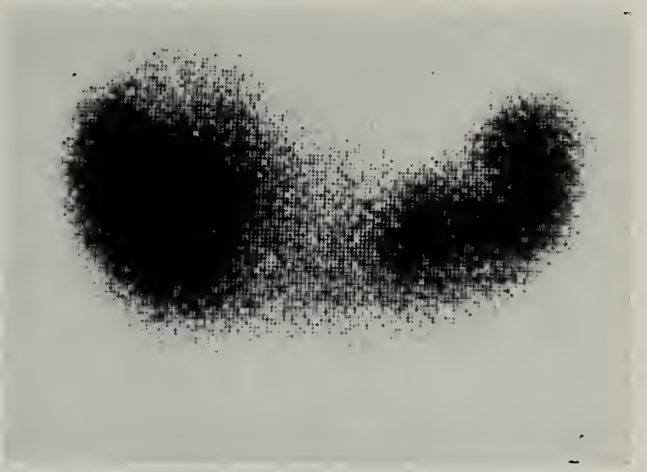

Fig. 3 Splenic scan (spleen to viewer's left): left posterior oblique, defect noted in splenic hilum demonstrating splenic tear.

A normal shaped spleen on plain abdominal X-ray does not rule out splenic tear as may be seen with a subcapsular hematoma. Additional examinations, such as arteriography and splenic isotope scanning, may be required to assist in the diagnosis. The safety, rapidity and lack of morbidity of scanning has made it an ideal tool. A defect in splenic outline, displacement of the spleen or spotty deposition of the technetium colloid are findings which make one highly suspicious of splenic trauma.[2]

Delayed rupture of the spleen is a diagnostic problem which has to be considered. The latent period may be as long as 14 days, with a reported case of rupture and hemorrhage two years after the trauma.[3] A negative splenic scan initially does not rule out splenic tear. The patient must be clinically observed and have a repeat scan in ten to 14 days. The scan then may frequently demonstrate the changes of splenic tear.

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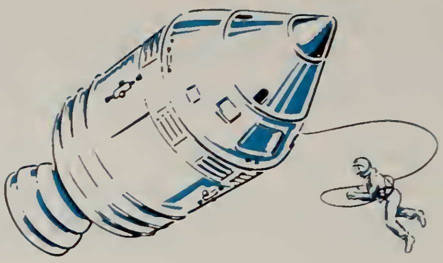

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President's Message

Among the theatre groups along Broadway in New York City, the last half of the summer is referred to as "The Silly Season." The same must be true of politics, also, especially as it refers to Medicine. At the time of this writing, the Eagleton embroglio is simmering down to a probable choice of Sargent Shriver as the Democratic candidate for Vice-President. My own comment is that after watching the antics of the denizens of Capitol Hill, there certainly are some others who could benefit from psychiatric advice but lack the personal integrity or initiative to seek it.

Walter T. Gunn, M.D.

To those of you who feel that the Kennedy concept is as far left as NHI can go . . . take a look at Congressman Ronald V. Dellums' (Calif.) Health Bill. It advocates abolition of private fee-for-service medical practice, placing all health providers on salary, eliminating private health insurance and forbidding profit making in any segment of the health industry. All of this will be supported by (what else?) special taxes. This ranks with the proposition made by another Congressperson (Msssss somebody or other) that all doctors' office visits have a ceiling price of $2.00. The fine basic knowledge of economics in our time shown by these two Congresspersons should entitle them to the top salary extant in World War I (remember the $1 a year men?). Although in their case, even this should be listed as a charitable contribution.

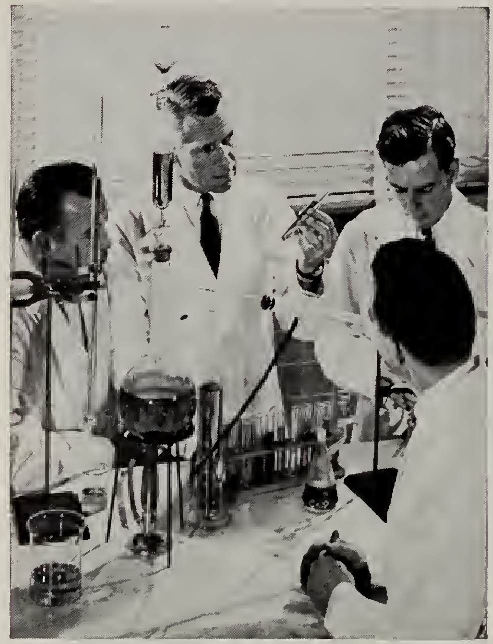
At the other end of the spectrum is the bill submitted by Senator John Tower of Texas exempting $20,000 the first year to a gradually scaled down $5,000 the fifth year of taxes on gross income for anyone volunteering for service in doctor-short rural areas or urban ghettos.

The "Hold Harmless" concept originally conceived by Aetna Life and Casualty Insurance Company has now spread to Blue Shield. In at least two states (not Missouri), Blue Shield is now selling insurance policies which promise to hold the insured patient "harmless" should a physician charge more than the insurance company's set reimbursement for each service. If the doctor attempts to collect the additional charge, Blue Shield promises to hire an attorney and defend the patient. This is based on a UCR schedule unilaterally established by Blue Shield.

If the "crisis mongers" would refrain from vociferous vituperation and poetry that converts Longfellow in his grave into a whirling dervish, they could make a good case against HMO's by sticking to the facts. As early as March, 1970, Dr. Sidney R. Garfield, founder of the Kaiser Permanente Medical setup, writing in the *Scientific American* stated that, "National Health Insurance . . . can only make things worse."

Even if your preferred choice for the Gubernatorial office (17 candidates) or Lieutenant Governor (11 candidates) or State Representative (five candidates in some areas) failed to be nominated, do not give up the political ship. Investigate the two choices offered by the major political parties in the November 7 general election. After deciding on the candidate best suited to advance the cause of patient care and medicine in the state of Missouri, do not only vote but, also, work for his election.

"Without your help



. . . I simply would not have made it through medical school!"

(The following letter was received on Oct. 1, 1971 from a physician who, as a student, received financial assistance from the Missouri State Medical Association members who have contributed to the Missouri State Medical Foundation. It is printed with his permission.)

Dear Doctor:

"Thank you very much for your thoughtful letter concerning receipt of my final payment on my medical student loan.

"I can well remember the feeling of destitution associated with being a reasonably good student but lacking funds with which to enroll for the next semester in medical school. Having always been, perhaps, more than adequately endowed with pride, it was a lesson in discipline and humility to go seeking financial assistance. However, the effort brought me in contact with some very nice people who really do a lot to keep one's faith in human nature alive.

"I sincerely appreciate the efforts which you and others put into the Missouri State Medical Foundation and all other student loan funds. You should feel a quiet heroism for the assistance you lend to needy students . . . without your help, I simply would not have made it through medical school."

The Missouri State Medical Foundation—MSMF—was created by the Missouri State Medical Association for the express purpose of giving financial assistance to deserving young Missourians who will be tomorrow's doctors.

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Woman's Auxiliary

INVITATION TO OPPORTUNITY

I wonder if you read the story in a recent issue of the *AMA News* about the little boy who had just returned home after his very first day at school. When his mother asked him what he had learned, he said, "Not enough! I have to go back tomorrow!"

This is exactly the way we Auxiliary members feel about our annual Statewide Fall Conference. No matter how much we learn each year, we feel that it is not enough . . . and find ourselves eagerly awaiting the opportunity to get together for the next conference program.

This year, the Auxiliary's Fall Conference will be held in conjunction with the MSMA Fifth Councilor District meeting on October 24-25 at Ramada Inn in Columbia. The theme will be "Legislation, Education and Community Action for Health." The fact that a special MSMA Council Ad Hoc Committee is helping us arrange this program is your first clue to how exciting and rewarding this Conference will be for your wife.

Further clues are the facts that we will learn more about legislation and both the MSMA and AMA Political Action Committees. What subjects could possibly be more timely and helpful just before our national and state elections?

Mrs. Keith D. Jones
President

October 24 will be topped off with the first big benefit dinner ever to be held on behalf of our important Missouri State Medical Foundation, and October 25 will be the Auxiliary's "Health Education Day," the day which the MSMA Council is cosponsoring. In addition to our members, representatives of approximately 50 other state organizations interested in health education are being invited to attend and hear our nationally-prominent speakers.

If your wife is not a member, we invite and urge her to attend this particular meeting. If she attends, we predict that she will join our MSMA Auxiliary. If she joins the Auxiliary, she will have this great opportunity to share the accomplishments, friendship and, yes, fun that many other dedicated members have enjoyed throughout the years. She'll add a new dimension to her life when she contributes time and energy to Auxiliary propects designed to assist our physician-husbands in their statewide and community programs for the advancement of medicine and public health.

We are grateful to the MSMA Council and Chairman James C. Cope for their interest and appreciate this opportunity to meet in conjunction with the Fifth Councilor District.

We will be especially grateful to **you**, Doctor, if you will help us in our membership efforts by taking this invitation and this issue of Missouri Medicine home to your wife . . . with **your** recommendation that she attend the Fall Conference and join the MSMA Woman's Auxiliary or, better still, vice versa!

Ask her to send her membership fee check for $8 to Mrs. Donald Eggleston, Chairman of Members-at-Large, 410 N. Rutherford, Macon, Mo. 64552 today. Then, we'll send detailed information about the Fall Conference to her very soon.

EDITORIAL

PATIENTS ARE PEOPLE

It was our privilege to attend the "National Conference on Human Values and Cancer" held in Atlanta on June 21-24. The title of the meeting was not particularly appealing to the physician who likes to see his patients' problems removed by a knife. But the information gained was unexpectedly pertinent to all types of medical practice.

Presentations by patients included one by a *Boston Globe* medical writer who said, "I do not want to make a career out of my colon," but goes on to point out that many doctors, clinics and hospitals are not geared to handle the problems of most ostomy patients. His views were ratified at another session by a Georgia surgeon who said he resisted the idea of the "Reach to Recovery" program of rehabilitation for mastectomy patients at first. However, he began using the program and has found that there are a number of ways in which the volunteer can help the patient without the surgeon or the patient even realizing that a problem existed.

It was said that an enterostomal therapist has done more to educate physicians of Georgia in colostomy construction and care than any postgraduate course. The heart of rehabilitation is in the highly individualized approach to each patient by a dedicated trained volunteer, who can spend the time that the physician does not have.

We heard from a labor leader who spoke on the difficulty that union members have in trying to obtain medical care in New York. Because the members had such problems as not knowing a way to separate competent, ethical physicians from physicians who would drop the case after insurance benefits were exhausted, a counseling service was set up for union members. Most calls come to this service now for nursing, home referrals or home care information. His pitch was not against doctors, but rather toward finding the way into the health care system.

The Associate Director of the American Hospital Association pointed out that the oft-mentioned annual medical check-up for all Americans is not a realistic goal and would bankrupt our health care system. He then went on to propose an HMO type of reorganization of health care delivery along the AHA previously published outline.

During the discussion period, this speaker read a question which included an obscenity expressing the questioner's attitude toward the AHA approach. The speaker's response was rather straightforward and urged the physician to use others to relieve him of duties which others can do.

The American Cancer Society sponsored this national meeting. As is traditional, there was a fair amount of emotion mixed into the proceedings. However, it takes occasional emotion to jar our own senses of omniscience about medical matters.

As the head of the Candlelighters, a group of parents of children with cancer, said, "Childhood cancer is an attack on the whole family." This point of view is from the patient and his family. We should all remind ourselves that their goals encompass their whole lifespan. The physician usually deals with only the immediate problem. He should encourage others to help him and his patients carry the burdens of the chronically afflicted.

ANDREW McCANSE, M.D.
Editor
Greater Kansas City Medical Bulletin

LETTERS to the Editor

A Thought for the Day

To the Editor:

I believe that most of us realize that the present day medical convention has come to serve a purpose for which it was not intended and very poorly serves the purpose for which it was designed—the dissemination of knowledge. The dreary succession of speakers who, for one reason or another, cannot speak effectively manage to destroy most of the educational potential of such a gathering. A recent meeting I attended was not an exception. Lots was said, but the message was usually stillborn.

The same meeting, however, produced some informal, delightful, wise and enlightening comments in hotel room "bull sessions." One of the most articulate of these bedroom orators held forth on the problem of heroin. I repeat it, as best as one can put this sort of thing on paper. Said the speaker:

(Continued on page 758)

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"I came along early enough in medicine to witness the prescription use of heroin. All of our house staff knew that it was dangerous, but we were taught that it was unparalleled for suppressing the cough reflex. We never prescribed the necessary dose more than six times in one week. We knew that heroin would stop the post-anesthetic cough in a herniorrhaphy patient better than anything else, and that was a real boon in those days. We used the drug properly and created no problems with it.

"Now, I suppose we have no medical indication for prescribing heroin, but we have a lot more of it; all used for bad not good. Therefore, I propose a new policy for heroin.

"To begin, I need to digress for a moment. I think we should realistically recognize that America is no longer an inexhaustible source of dollars. We may continue to do it, but we can't afford the luxury of programs which do not work. Therefore, I propose that we make heroin free to anyone who wants it. It is ridiculously cheap and simple to prepare. Our efforts to prevent its importation have failed, so, by offering it free, we immediately take it out of the underworld because there would be no profit in it. Also, by providing it without charge, we will go far in removing the crime potential of the user. It will not likely be fashionable or appeal to the social pattern of many of those who get hooked on it. We can also take ourselves out of the futile rehabilitation game by saying, 'Here it is! If you haven't anymore sense than to go for it, don't expect society to bail you out!' That approach won't make it very appealing. Since almost nobody is rehabilitated from heroin usage anyway, this will free funds for endeavors which promise reasonable expectation of success. For those who still want it, give it to them because they are mainly psychological misfits and not one in a hundred would ever be a productive member of society. With continued usage, these people will soon be out of the way."

An extreme view? An oversimplified view? Perhaps! A realistic view? Probably! For myself, I agree. It may not be an ideal solution, but I believe it is practical and better than what we have now. I, too, think that we have become a nation of diminishing human and material resources and that we must begin to adopt lines of thought more in keeping with those of the rest of the world, which can't afford our profligate ways. I think it is time for us to develop a more mature national philosophy which will recognize the hard facts of life and which will no longer condone our molly-coddling approach to this social problem.

Sincerely,
Wilfred E. Wooldridge, M.D.
Springfield, Mo.

Have you moved recently? Please send any changes of address to Missouri Medicine, 515 E. High, Jefferson City, Mo. 65101. We need your help in keeping our mailing list up to date. You are our best source of information.

Continuing Education Coming Events

Sept. 9	**Industrial Injuries of the Hand** Cori Auditorium Washington University School of Medicine St. Louis 63110
Sept. 12-15	**Third Conference on Computer Applications in Radiology** Continuing Education, M.U. School of Medicine, American College of Radiology and International Committee on Computer Application in Radiology Medical Center Auditorium, Columbia 65201
Sept. 28-29	**Sixth Annual Health Systems Research Symposium** *Sponsors:* M.U. School of Medicine, College of Engineering, Department of Industrial Engineering, Extension Division and Missouri Regional Medical Program University of Missouri, Columbia 65201
Sept. 28-29	**Workshop—Roots of Responsibility II (for primary care physicians)** Department of Human Ecology, K.U. School of Medicine Glenwood Manor, Overland Park, Kan.
Oct. 4-5	**Conference on Child Development and Child Psychiatry** Continuing Education-M.U. School of Medicine, Missouri State Division of Mental Health and Mid-Missouri Mental Health Center Medical Center Auditorium, Columbia 65201
Oct. 23-25	**50th Annual Fall Clinical Conference** Kansas City Southwest Clinical Society in cooperation with the School of Medicine and Division for Continuing Education, University of Missouri-Kansas City Hotel Muehlebach, Kansas City
Nov. 8-10	**Recent Clinical Advances in Pediatrics** *Sponsors:* Danciger Institute for the Health Sciences; Departments of Pediatrics at Children's Mercy Hospital, St. Luke's Hospital and Menorah Medical Center; Missouri Chapter of the American Academy of Pediatrics; and Kansas City Academy of Family Physicians Children's Mercy Hospital, Kansas City
Dec. 6-7	**The Heart, 1972** School of Medicine and Division for Continuing Education, University of Missouri-Kansas City; Kansas City Southwest Clinical Society; Missouri Regional Medical Program Children's Mercy Hospital, Kansas City

Five Seminars on Health Insurance Problems Scheduled for September, October

The Missouri Hospital Association and Health Insurance Council have announced that the Third Annual Seminars on Health Insurance Problems will be held at Ramada Inn in Columbia and Holiday Inn in Springfield on September 20, in Kansas City on September 21 (Glenwood Manor, Overland Park, Kan.), at Ramada Inn on I-55 & Lindberg in St. Louis on October 11 and at Ramada Inn in Cape Girardeau on October 12.

The Seminars are presented in cooperation with the Missouri State Medical Association, Missouri Association of Osteopathic Physicians & Surgeons and the Hospital Financial Management Associations for the benefit of insurance personnel in physicians' offices and hospitals.

The meetings will be conducted entirely by the commercial insurance companies and will pertain to commercial insurance problems only. This will include physicians insurance problems and hospital problems. The subject will be the paperwork involved in filing claims and explanation of problems experienced with commercial insurance companies. Representatives of major commercial insurance carriers will be at the seminars, and participants will have an opportunity to ask questions. All sessions will begin at 9 AM.

Since a large turnout is expected, physicians are urged to make registrations for their insurance personnel as soon as possible. The registration fee of $6.00 includes materials, luncheon and coffee.

Registration checks ($6.00 for each registrant) for the seminars in Columbia, Cape Girardeau, Springfield and St. Louis should be made payable to and mailed to the Missouri Hospital Association, 211 E. Capitol Ave., Box 1044, Jefferson City, Mo. 65101.

Registration checks for the Kansas City Seminar should be mailed to Mr. Robert F. Wood, Research Hospital, Meyer Blvd. at Prospect, Kansas City, Mo. 64132.

Symposium on Respiratory Diseases to be Held on October 1

All physicians in Missouri are invited to join with the St. Louis Academy of Family Physicians and the Tuberculosis and Health Society of St. Louis for a *Symposium on Respiratory Diseases* at the Colony Motor Hotel on October 1.

The scientific program will begin at 9:30 AM and continue until 3 PM. Subjects to be discussed will include Spirometry, Pediatric Respiratory Diseases, TB Today-Tomorrow and Anti-TB Drugs Today-Tomorrow.

Guest speaker at the luncheon to be held between the morning and afternoon sessions will be Mr. Arthur Hoglund, President of the Missouri Contestors Association, whose talk will be entitled "Contesting." A social hour sponsored by Mallinckrodt Pharmaceuticals will follow the afternoon session.

A special program on Yoga Exercises has been arranged for the ladies who accompany their husbands.

The scientific program is accepted for five prescribed hours by the American Academy of Family Physicians. Registration fee for the day is $7.50. For reservations, write to the St. Louis Academy of Family Physicians, 3839 Lindell Blvd., St. Louis, Mo. 63108.

IMPROVED ACCIDENT & HEALTH PROGRAMS

The Disability Income Policy sponsored by the Missouri State Medical Association since 1943 has now been made GUARANTEED RENEWABLE and income benefits are available up to $300.00 weekly to members under age 56 subject to acceptance by the Company.

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Booklet Lists Funds Sources For Students in Health Fields

Obtaining money to finance training is a major problem for many students interested in a health career, particularly those from minority groups.

A new publication issued by the American Medical Association—a guidebook to grants—can assist potential doctors and allied health workers to resolve this problem.

More than 1,000 sources of funds are listed in *FIND (Financial Information National Directory—Health Careers).* In preparation for a year, the book tells where aid sources are, how much is offered, who is eligible and where to apply.

Career training covered by the available aid includes the fields of medicine, veterinary medicine, nursing, laboratory technology and numerous others.

"There is an urgent need for energetic, capable people to work in the many areas of health care delivery," said Dr. E. B. Howard, AMA executive vice president. "We need idealists dedicated to the delivery of complete health care to all people." Unfortunately, many such idealists turn to other careers after "facing the realities of the expense of additional training," Dr. Howard said. He added, "It is our hope that with *FIND*, students will be able to base their career decisions primarily on their interests and abilities, not their economic situation."

The book will be available to school guidance counselors, libraries, health profession agencies and others involved in career counseling, as well as individual students. The price is $2.95 a copy.

In addition, an information clearinghouse is operated through a computer bank at AMA headquarters. On request, a search will be run for a student to locate funds meeting his or her specific needs and qualifications. Printouts are made of five appropriate fund sources and sent free to the students.

Requests for the book or information assistance may be sent to *FIND*, 535 N. Dearborn, Chicago, Ill. 60610.

DOCTOR—Please take home each copy of your Journal. The wives complain that they never get to read the Auxiliary column.

VECTORCARDIOGRAPHY
A WORKSHOP
OCTOBER 11-13, 1972

This basic course in vectorcardiography is designed for physicians with a basic understanding of electrocardiography who wish a close exposure to the values and limitations of vectorcardiography.

An intensive three-day program will cover the basics of vectorcardiography and related areas. Major emphasis will be placed on theoretical and practical applications of the technique as related to diagnostic problems. Half of the program will be dedicated to individual analysis of routine vectorcardiograms by the participants under the orientation of the program director and faculty.

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The American College of Cardiology and
The Institute for Cardiovascular Diseases
Good Samaritan Hospital
Phoenix, Arizona

at

Mountain Shadows Resort Hotel
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Program Director

Alberto Benchimol, M.D., Director
Institute for Cardiovascular Diseases
Good Samaritan Hospital

For Information Concerning the Program, Write:

Miss Mary Anne McInerny, Director
Dept. of Continuing Education Programs
American College of Cardiology
9650 Rockville Pike
Bethesda, Maryland 20014

New Members

Richard T. Chung, M.D., 4949 Rockhill Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Chung is a native of Mauritius, received his preliminary education at the University of London and his M.D. degree at the Royal College of Surgeons in 1968. He specializes in internal medicine.

Edward B. Cross, M.D., 2220 Holmes, Kansas City, has become a member of Jackson County Medical Society. Dr. Cross is a native of Forest City, Ark., received his preliminary education at Columbia University and his M.D. degree at Howard University Medical School in 1952. He specializes in internal medicine (cardiology).

Jaime J. Del Carmen, M.D., 2415 N. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Del Carmen is a native of the Philippines, received his preliminary education at Far Eastern University and his M.D. degree at Far Eastern University in 1962. He specializes in pathology.

George D. Dixon, M.D., Wornall Rd. at 44th St., Kansas City, has become a member of Jackson County Medical Society. Dr. Dixon is a native of Valley City, N. D., received his preliminary education at the University of North Dakota and his M.D. degree at Tulane University in 1961. He specializes in radiology.

Ahmed Elkadi, M.D., Missouri State Chest Hospital, Mt. Vernon, has become a member of Ozarks Medical Society. Dr. Elkadi is a native of Desouk, Egypt, received his preliminary education at Alexandria, Egypt, and his M.D. degree at Graz University Medical School in 1961. He specializes in thoracic surgery.

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Melvin L. Glazer, M.D., 8300 Troost, Kansas City, has become a member of Jackson County Medical Society. Dr. Glazer is a native of Des Moines, Iowa, received his preliminary education at Drake University and his M.D. degree at the University of Iowa in 1966. He specializes in internal medicine (rheumatology).

Douglas R. Gowler, M.D., 111 S. Meramec, St. Louis, has become a member of St. Louis Medical Society. Dr. Gowler is a native of Manitoba, Canada, received his preliminary education at the University of Manitoba and his M.D. degree at the University of Manitoba in 1957. He specializes in child psychiatry.

Jaime Jaramillo, M.D., 5400 Arsenal, St. Louis, has become a member of St. Louis Medical Society. Dr. Jaramillo is a native of Colombia, South America, received his preliminary education at San Luis Gonzaga School and his M.D. degree at Javeriana University Medical School in 1958. He specializes in child psychiatry.

Marandapalli R. Jayaram, M.D., 2310 E. Linwood Blvd., Kansas City, has become a member of Jackson County Medical Society. Dr. Jayaram is a native of Mysore, India, and received his M.D. degree at Government Medical College in 1965. He specializes in pediatrics.

Gary Kahn, M.D., 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Kahn is a native of San Antonio, Tex., received his preliminary education at the University of Texas and his M.D. degree from the University of Texas in 1971. He is in family practice.

John D. Kenney, M.D., 2821 N. Ballas Rd., St. Louis, has become a member of St. Louis County Medical Society. Dr. Kenney is a native of Cleveland, Ohio, received his preliminary education at John Carroll University and his M.D. degree at St. Louis University in 1961. He specializes in orthopedic surgery.

Robert C. Kolodny, M.D., 4910 Forest Park Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Kolodny is a native of New York, N. Y. and received his M.D. degree from Columbia University in 1969. He specializes in internal medicine.

Paul I. Liu, M.D., 3655 Vista, St. Louis, has become a member of St. Louis Medical Society. Dr. Liu is a native of Formosa, received his preliminary education at National Taiwan University and his M.D. degree from National Taiwan University in 1960. He specializes in pathology.

John H. Mayer, III, M.D., 4620 Nichols Parkway, Kansas City, has become a member of Jackson County Medical Society. Dr. Mayer is a native of New York, N. Y., received his preliminary education at the University of Kansas and his M.D. degree at the University of Missouri in 1965. He specializes in thoracic surgery.

Manutchehr K. Parsi, M.D., 600 N. Union, St. Louis, has become a member of St. Louis Medical Society. Dr. Parsi is a native of Iran and received his M.D. degree at the University of Tehran in 1963. He specializes in obstetrics and gynecology.

Harry W. Schoenberg, M.D., 1325 S. Grand Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Schoenberg is a native of New York, N. Y., received his preliminary education at Pennsylvania University and his M.D. degree at the University of Pennsylvania in 1952. He specializes in urology.

Bernard J. Simbari, M.D., 1755 S. Grand, St. Louis, has become a member of St. Louis Medical Society. Dr. Simbari is a native of Ft. Lauderdale, Fla., received his preliminary education at the University of Florida and his M.D. degree at the University of Florida in 1969. He is in general practice.

James C. Warren, M.D., 4911 Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Warren is a native of Oklahoma City, Okla., received his preliminary education at the University of Wichita and his M.D. degree at the University of Kansas in 1954. He specializes in obstetrics and gynecology.

Gerald Wolff, M.D., 4989 Barnes Hospital Plaza, St. Louis, has become a member of St. Louis Medical Society. Dr. Wolff is a native of St. Louis, received his preliminary education at Harvard College and his M.D. degree at Washington University in 1961. He specializes in internal medicine (cardiology).

In Memoriam

Davis, Robert C., M.D., Kansas City, a graduate of the University of Kansas, 1916; member Jackson County Medical Society; age, 80; died June 22, 1972.

Rogers, C. H., M.D., St. Louis, a graduate of St. Louis College of Physicians & Surgeons, 1918; member St. Louis County Medical Society; age, 79; died July 5, 1972.

Burford, Cyrus E., M.D., St. Louis, a graduate of Marion Sims, 1902; member St. Louis Medical Society; age, 96; died July 10, 1972.

Reilly, Pierce J., M.D., St. Louis, a graduate of Marquette University, 1922; member St. Louis County Medical Society; age, 79; died July, 1972.

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The Meaning of NAS/NRC Findings in Prescription Drug Advertising and Labeling*

I. Background

The Amendments of 1962 to the Federal Food, Drug and Cosmetic Act authorized the FDA to review available evidence of effectiveness on many drugs marketed between 1938 and 1962. Specifically, the Amendments provided that after a two-year grace period, the effectiveness of such drugs should be supported by adequate and well-controlled clinical investigations. Until 1962, evidence on effectiveness had been considered in evaluating new drug applications only when it related to patient safety. Of course, long before 1962, the FDA had authority to remove any drug product from the market whenever it could prove that it would not perform as claimed or was deemed dangerous to health when used as directed.

In 1966, the FDA asked the National Academy of Sciences for assistance in assessing the evidence supporting the effectiveness of pre-1962 drugs. Consequently, and in cooperation with FDA and industry, the NAS/NRC appointed 30 six-man panels to review these drugs and frame recommendations to the Agency. Only evidence available through 1966 was considered. The panels conducted no research.

Panels rated each drug or drug claim as "effective," "probably effective," "possibly effective," "ineffective," "effective, but" or "ineffective as a fixed combination." These recommendations were transmitted to FDA by the NAS/NRC. Many drug products received mixed or indecisive evaluations. For example, some drugs were reviewed by more than one panel and received different recommendations from each. Drugs with several claims frequently received varied ratings. It should be noted, too, that the consensus of a panel was not a recommendation of the NAS/NRC and, of course, had no legal effect.

FDA then considered the panel recommendations along with any other information at its disposal and began regulatory action which has taken the form of (1) a notice of effectiveness; (2) a request for change in labeling claims; (3) a request for more evidence, including clinical trials; (4) a request that the drug be reformulated; (5) or a proposal to remove the drug from the market. It should be emphasized that an initial notice in the *Federal Register* on implementation comprises only a first step in the process provided for in the Act for deciding a drug's effectiveness. Thus, much like a court case, there can be no presumption of a product's lack of effectiveness until all evidence is mustered.

FDA has now ordered that prescription drug labeling and advertising contain NAS/NRC panel findings other than "effective." This order becomes applicable only when an FDA implementation notice appears in the *Federal Register.* In those instances, when FDA disagrees with the NAS/NRC findings, the FDA finding will supersede and will appear instead of the panel finding. Thus, long before the issue of effectiveness is finally resolved, physicians will be informed of, and pharmaceutical manufacturers will be required to abide by, FDA's opinion.

It should be emphasized that FDA classifications of "less than effective" apply only to particular indications, not to products *per se,* and will so appear in labeling and advertising.

The following statement delineating what the panels considered the classifications to mean are derived from the guidelines for the review published by the National Academy of Sciences, Division of Medical Sciences, and from the final report of the study published by the same group.

II. Findings

In the main, the findings relate to the availability (or lack of availability) of certain types of evidence rather than to the actual effectiveness of the drugs.

"Effective"—For the presented indication, the drug is effective on the basis stated.

"Probably Effective"—Effectiveness for the particular indication is probable, but additional evidence is required before the drug can be finally assigned to the "effective" category. Modification of claims may be all that is needed. In some cases, the panels believe drugs in this category are effective on the basis of clinical experience but lack adequate and well-controlled studies.

"Possibly Effective"—There is insufficient evidence of effectiveness under the criteria listed for the study. However, in some cases here, as

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[*] This statement was provided by the Pharmaceutical Manufacturers Association, Washington, D. C.

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nd Efudex® (fluorouracil) 5% cream can resolve it.

l it actinic, solar or senile keratoses, ay regard it as "precancerous."[1,2]

ical fluorouracil, considered by some dermatologists to be a major nce in the treatment of multiple solar keratoses,[3,4] offers the physi- a relatively inexpensive alternative to cryosurgery, electrodesic- on and cold knife surgery. Of the topical fluorouracils available, only lex offers 2% and 5% solution and 5% cream formulations—formula- s that have proved effective in the treatment of these mutliple lesions.

ual duration of therapy, 2 to 4 weeks.

ies showed that with the 2% and 5% Efudex preparations, the usual tion of therapy was only 2 to 4 weeks.[5] Other studies with topical ouracil revealed that when concentrations of less than 2% were , significant numbers of lesions recurred.[6]

eats the lesions you can't see, too.

nerous lesions, not apparent prior to 2% and 5% Efudex therapy, ifested themselves by definite reactions, while intervening skin ained relatively unaffected.[5] The early eradication of these subclini- esions (which may otherwise have undergone further progression) bably accounts for the reduced incidence of future solar keratoses in ents treated with topical fluorouracil—especially with 5% centrations.[6]

w to identify solar keratoses.

ically, the lesion—a flat or slightly elevated brown to red-brown ule—is dry, rough, adherent and sharply defined. Multiple lesions the rule.

edictable therapeutic response.

response to a typical course of Efudex therapy is usually racteristic and predictable. After 3 or 4 days of treatment, erythema ins to appear in the area of keratoses. This is followed by a moderate ntense inflammatory response, scaling and occasionally moderate derness or pain. The height of this response generally occurs two ks after the start of therapy and then begins to subside as treatment topped. Within two weeks of discontinuing medication, the ammation is usually gone. Lesions that do not respond should biopsied.

rences: 1. Allen, A. C.: *The Skin, A Clinicopathological Treatise*, ed. 2, New York, ne & Stratton, 1967, p. 842. 2. Dillaha, C. J.; Jansen, G. T, and Honeycutt, W. M.: eatment of Actinic Keratoses with Topical Fluorouracil," in Waisman, M. (ed.): *rmaceutical Therapeutics in Dermatology*, Springfield, Ill., Charles C Thomas, 1968, 2. 3. Belisario, J. C.: *Cutis*, *6*:293, 1970. 4. Sams, W. M.: *Arch. Derm.*, *97*:14, 1968. ata on file, Hoffmann-La Roche Inc., Nutley, New Jersey. 6. Williams, A. C., and n, E.: *Cancer*, *25*:450, 1970.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity to any of its components.

Warnings: If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

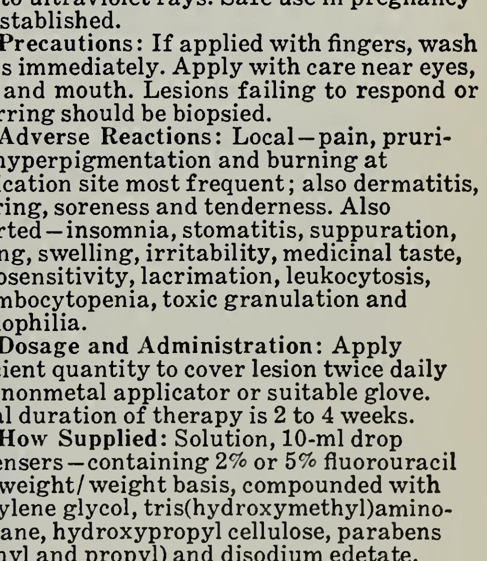
Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

How Supplied: Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)aminomethane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).



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well as in the "probably effective" category, the panels believed the drugs to be effective on the basis of clinical experience. The panels were not always consistent with each other in the use of this and the "probably effective" rating.

"Effective, But"—Panels applied this rating to drugs for which there was substantial evidence of effectiveness, but which they considered inferior to other drugs. This category is surprising since the Food and Drug Act does not permit the FDA to consider relative effectiveness in exercising its authority over drugs. It also was used to draw attention to so-called vaguely worded or misleading claims.

"Ineffective as a Fixed Combination"—This category does not involve effectiveness in its usual sense but, rather, reflects basic philosophical attitudes toward fixed combination products. Thus, the final report states that multiple therapy using fixed dose ratios, which are determined by the manufacturer and not by the physician, is, in general, poor practice. The findings "effective, but" and "ineffective as a fixed combination" are usually changed by FDA prior to publication to one of the other findings listed herein.

"Ineffective"—There is no acceptable evidence as to effectiveness.

III. CONCLUSION

The service performed in general by the NAS/NRC review panels was outstanding and panel members and NAS/NRC staffers are to be commended for ably carrying out a complex task in a short period of time. However, because of the factors enumerated, each finding must be considered individually. It should not be regarded necessarily as immutable doctrine but only as limited opinion on a question of drug therapy. Further, final decisions have not been made on many drugs. They remain available pending the development of further evidence.

Significantly, the panels themselves wrote as follows in the final report: "The final arbiter of the value of a drug is the consensus of the experience of critical physicians in its use in the practice of medicine over a period of years. Approval of a new drug for release to the market is only a license to seek this experience."

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(Continued from page 729)

"Acupuncture is an important thing that has to be looked into," Jenerick said. "We are now committed to starting a significant investigation of it. The question is whether you want to shoot for the moon or send somebody to the corner book store for a book about it. This will be somewhere in between those extremes."

The announcement was made in a statement by Dr. Robert Q. Marston, NIH Director, who said the investigation was recommended by a committee of experts in anesthesiology, neurology, neurophysiology and psychology who met on July 17-18 at NIH. Committee chairman was Dr. John J. Donican, a pain authority at the University of Washington's School of Medicine in Seattle.

"After considering the many suggested uses of acupuncture, the Committee recommended that the most valuable first approach in the United States would be studies on the method's use for surgical anesthesia and for the alleviation of certain chronic pain syndromes," Marston said.

Among uses considered by the Committee but rejected for immediate exploration were acupuncture treatment for arthritis, toothache, low back pain, rheumatism and insomnia, Jenerick said.

* * *

The fate of the physicians' draft next year rests with Congress and the extra pay bill for military physicians . . . a measure now before the House Armed Services Committee.

Assistant Secretary of Defense for Health and Environment, Richard Wilbur, M.D., who helped fashion the new program, is keeping his fingers crossed that the lawmakers will okay the bill this session. Without it, he says, the draft undoubtedly will have to be extended for young physicians.

Little controversy has cropped up over the legislation and barring some unexpected obstacle, it stands an excellent chance of whisking through Congress before adjournment this year.

Designed to "facilitate the establishment of an all voluntary army and to maintain sufficient numbers of career officers in critical areas," the pay bill authorizes yearly bonuses of up to $17,000 for qualified physicians "in addition to any other pay or allowances to which he was entitled."

This would be in addition to the $100 a month extra pay for the first two years of service and $350 a month thereafter.

Federal funds have been withheld from 579 nursing homes for failure to meet minimum standards of health and safety as ordered by President Nixon last August.

HEW Secretary John Veneman said that 327 nursing homes—222 of them in New York state—lost their certification and another 252 homes withdrew from the program because they were unable or unwilling to meet the standards.

Of the approximately 7,000 homes receiving federal nursing home aid, 1,469 received full certification and 4,766 were certified for six months to give them time to correct deficiencies not affecting health and safety. An additional 244 are still in the certification process.

Veneman's report covered only nursing homes which received federal aid under the Medicaid program. It did not affect the approximately 16,000 homes for the elderly not receiving such assistance

Veneman said the year-long recertification process indicated "the majority of nursing homes are providing quality care in safe and helpful surroundings."

* * *

The Administration soon will recommend legislation to halt illegal traffic in methadone as a substitute for heroin.

John Ingersoll, Director of the Bureau of Narcotics and Dangerous Drugs, told the National Commission on Marijuana and Drug Abuse: "The increase in the last several years is so dramatic as to indicate that our present legal controls are inadequate."

Ingersoll said that in New York City, 92% of a group of heroin addicts reported they had been offered illegal methadone by pushers and 13% said they had sold it themselves.

He said that a similar study in Miami showed that 40% of the applicants to a legitimate methadone maintenance center already were using the drug illegally.

In advising the panel that the Administration soon would send Congress legislation, Ingersoll commented:

"In some programs patients are actually permitted to handle and administer narcotic medication with the result that much of the drug has been pilfered for sale in the illicit traffic."

Correction, Please!—An error occurred in the caption for the picture of Past-Presidents of the Missouri State Medical Association on page 511 of the July 1, 1972 issue of Missouri Medicine. The Past-President standing fifth from the left in that picture is Paul R. Whitener, M.D. of St. Ann, MSMA President in 1965-1966.

LEO H. POLLOCK, M.D.

Missouri Medicine in Review

FORTY YEARS AGO

Dr. Joseph Grindon, St. Louis, in his description of the history of the Missouri State Medical Association, stated the following:

"In the early summer of the year 1849, there met together a group of St. Louis physicians for the purpose of issuing a call to the medical profession of Missouri, inviting them to form a State Medical Association. They were a committee of the St. Louis Medical Society, appointed for the purpose. Up to that time, Missouri had not been represented as a state in the American Medical Association.

"The chief exponent of the project was Dr. William S. McPheeters. The others were Drs. John B. Johnson, S. Gratz Moses, George Engelmann and George Penn. This historic document can be found in full in the valuable volume entitled 'Medicine in Missouri' which we owe to the industry of our efficient Secretary, Dr. E. J. Goodwin.

"The first meeting was held in St. Louis in November of the same year 83 years ago. Dr. W. G. Thomas of Boonville was elected President and Dr. J. S. B. Alleyne of St. Louis, Secretary. The second meeting was held in Boonville in April of 1850; Dr. McPheeters presiding.

"Dr. D. M. Davidson of Cole County presented a report on obstetrics and diseases of women and children; Dr. Joseph Nash McDowell of St. Louis, on Surgery; Dr. M. L. Linton, one on medicine, and Dr. John Laughton on medical education.

"It is worthy to note that from the first, our Association took a watchful interest in the all-important matter of education. The Association continued to hold annual meetings until 1858 when they were suspended on account of the conditions which led up to the Civil War. In 1867, the reorganization of the Association was accomplished, and a meeting held in St. Louis under the presidency of Dr. G. A. Williams of Boonville.

"Since that time, annual meetings have been held without interruption. In 1903, a new Constitution and Bylaws were adopted. The work of organizing county medical societies had been prosecuted during the year 1902, and with the adoption of the new Constitution in 1903, the membership increased from 300 to 1,200 with 40 counties in affiliation. The state was divided into councilor districts, and councilors appointed whose duty it should be to organize a local society in each of the counties included in the district. Dr. Bernard G. Farrar, the first president of the St. Louis Medical Society and called 'the father of the St. Louis profession,' died the year that this body came into existence."

TWENTY-FIVE YEARS AGO

The American Medical Association announced recently that 70% of the 6,252 students who have been selected as freshmen to enter medical schools and schools of basic sciences in the U. S. in 1947 were war veterans. The freshmen students selected up to June, 1947 include 4,399 male veterans (70%), 1,301 other men (21%) and 598 women (9%). Forty-seven of the women were veterans. The council points out that in 1946-1947, there were 2,183 women students or 9.1% of the total students enrolled in the United States. This is the highest absolute, as well as relative, number of women medical students on record in the United States. The highest percentage of women was in the freshmen classes, in which they number 11.1%.

During the period of July 1, 1937 to June 30, 1942 when 25,818 physicians were graduated, 18,988 physicians were reported to have died. Thus, the net increase in the number of physicians for that five-year period was 6,920. During the five-year period of July 1, 1942 to June 30, 1947, 32,877 physicians were graduated and 16,435 died, making a net increase of 16,422.

The report points to the more than 100% increase in the number of approved residencies in civilian hospitals in the United States since 1941. It states that "the present total is 12,003 residencies as compared with 5,256 at the beginning of the war. In 1941, the hospitals approved by the American Medical Association for the training of resident physicians totalled 610. This number has now increased to 1,017, including nine hospitals of the Army, 16 of the Navy, eight of the U. S. Public Health Service and 51 of the Veterans Administration."

The Annual Fall Clinical Conference of the Kansas City Southwest Clinical Society will be held in the Municipal Auditorium and Hotel President in Kansas City from October 6-9, 1947. A joint meeting with the county medical societies will be held on Monday evening. This will be a clinicopathologic conference directed by Ferdinand C. Helwig, M.D., Kansas City, with Drs. William E. Adams, Robert Elman, George Ewell, Howard K. Gray, Russell L. Haden, John S. Lockwood, Robert A. Moore, Eugene Pendergrass, Leon Schiff and Willard Thompson participating.

The Excelsior Surgical Club, a national organization of surgeons who served in the Mediterranean Theater during World War II, will meet in St. Louis on October 17-18. The meeting will open with the Edward D. Churchill Lecture presented by Evarts A. Graham, M.D., St. Louis, at the St. Louis Medical Society on October 18.

TEN YEARS AGO

An interesting meeting took place at the Nevada Country Club on June 14. It was a joint session of the West Central Missouri Medical Society and lawyers in the area. The Vernon County Bar Association cooperated with Charles B. Wheeler, M.D., pathologist, General Hospital in Kansas City, in presenting a program skit entitled "An Accident, An Abortion and Anxiety." This type of program seemed to be unusually well received by both doctors and lawyers.

"For 55 years of conspicuous service in Liberty, Mo., this certificate of recognition is awarded to William H. Goodson, M.D. by the Liberty Chamber of Commerce, Inc., July 17, 1962." These were the words on a plaque presented to Doctor Goodson at a Chamber of Commerce luncheon. Members of the Clay County Medical Society were invited to the meeting.

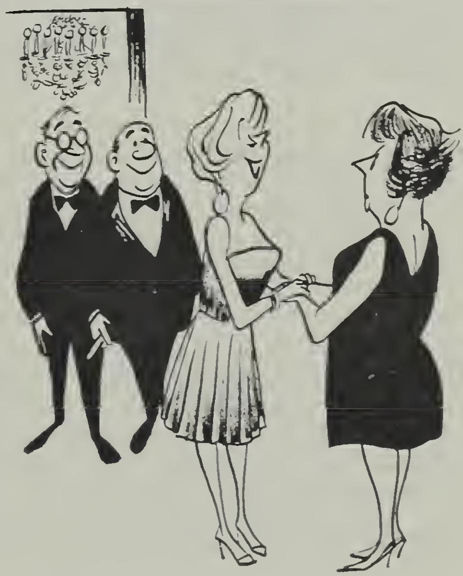
While at Camp Ripley, Minn. for summer field training, Lt. Col. Rollin H. Smith, West Plains, was presented a plaque for his long service in the National Guard. Doctor Smith will retire from the National Guard in November after 20 years of service.

The International Cardiovascular Society has elected C. Rollin Hanlon, M.D., St. Louis, as president. He will hold the office for two years and will deliver a presidential address next year when the Society meets in Rome, Italy.

Among lecturers at a course at the Loma Linda University School of Medicine in Los Angeles late in October will be Pat A. Barelli, M.D., Kansas City, and Daniel D. Klaff, M.D., St. Louis.

In 1933, the year in which life expectancy in the United States rose to 59 years, Amos Alonzo Stagg, the first athletic director coach to have academic rank (associate professor at the University of Chicago) retired at the age of 70. Mr. Stagg celebrated his 100th birthday on August 16. In 1914, the athletic field at the University was renamed Stagg Field. In that same year, the Yale Bowl, which seats 80,000 people, was built, the first of the giant college stadia.

Pennies are going to be cheaper. On July 2, the House voted to stop using tin in pennies. Copper has and will continue to make up 95% of the cent, but zinc will be used for the other 5%. Tin has cost $1.16 per pound and zinc costs 12¢ per pound.



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MSMA NEWS ROUND-UP

October 1972

Decision defines acupuncture as 'practice of medicine'

Acupuncture, the ancient Chinese art of needle medicine, is considered a practice of medicine and can be administered only by a licensed physician in Missouri, according to a Board of Healing Arts decision.

Notice of this decision was released to the press Sept. 18, although John Hailey, executive secretary, said the board had made the decision at its August meeting.

However, the board's action was not made known to the general public or to the medical profession.

The decision was made public in response to a resolution passed Sept. 17 by the MSMA Council. The resolution urged the Board of Healing Arts to utilize legal and statutory powers to declare that the practice of acupuncture involves medical principles and should fall under the definition of the practice of medicine.

MSMA Council approves participation in statewide VD Education Program

Participation of the Missouri State Medical ssociation in a statewide VD Education Proram was approved at the fall meeting of the ouncil, Sept. 16-17, at Rolla.

The MSMA will cooperate with the Division Health, Department of Education, Missouri ssociation of Ostepathic Physicians and Surons and the Missouri Parent-Teacher's Asciation in developing a curriculum for VD orkshops across the state.

Other actions

In other actions the Council:

- Expressed the appreciation of the MSMA Dr. George Ulett for his efforts over the st decade in improving the mental health prorams of Missouri. Dr. Ulett recently announced is resignation as Missouri Director of the ivision of Mental Diseases.
- Extended an invitation to the Missouri oard of Healing Arts President, or his desigated board member, to attend MSMA Council eetings.
- Approved a request from the Women's

Please see Column 1, Next Page

Greene County, Eighth District meeting to feature Dr. Hoffman

C. A. Hoffman, M.D., President of the American Medical Association, will address a joint meeting of the Greene County Medical Society and Eighth District Councilor District in Springfield, Nov. 16.

Along with Greene County, which is hosting the visit, and Eighth District physicians, Missouri's Delegates to the AMA and many state officers and district councilors plan to attend the meeting.

Please see Column 2, Next Page

Continued from Page 1

Auxiliary to transfer physicians' contributions to the AMA-ERF to credit the Auxiliary. It was emphasized this is not a change in policy, but only a change in accounting procedures.

- Voted to assist the Greene County Medical Society in arrangements for the visit of AMA President, Dr. C. A. Hoffman.
- Indicated its approval of the Health Care Foundation of Missouri's efforts to seek additional financial assistance through government support. The Council also urged the HCFM to continue to seek other means of financial support.
- Approved the appointment of Drs. Charles R. Gulick, Allen Chandler and James C. Cope to an MSMA Advisory Committee to work with the By-Laws Committee of the HCFM.

Endorse application

- Endorsed and asked support for the Missouri Heart Association's grant application to MRMP for a statewide training program in cardiopulmonary resuscitation.
- Approved continuation of the annual Public Affairs Conference, to be held in early February, 1973.
- Agreed to again support the "Mini-Estes" meeting for hospital administrators, boards of trustees and medical staff officers. The meeting will be March 1-2, 1973, in Columbia.
- Approved of the formation of the Pediatric Coordination Council of Missouri and agreed to name a MSMA representative to the Council.
- Heard and approved a report from Dr. E. A. Stricker on the AMA Communications Clinic and asked staff to gather as much Clinic material as possible to be sent to county society secretaries.

Approve cruise

- Voted to approve sponsorship of a cruise down the Rhine River from Amsterdam to Basel, Oct. 7-15, 1973.
- Accepted a report from the Ad Hoc Committee on Family Planning which recommended that local medical societies and/or local physicians take a more active role in the establishment and operation of family planning clinics and the frequent appraisal of each clinic in such areas as its effectiveness, respect for medical ethics, number of patients reached, cost per patient and the extent to which the clinics are invading the private practice of medicine.
- Accepted the report of the Membership Communications Committee which recommended distribution of a revised "welcome" pamphlet to all new MSMA members, continuation of the News Media Awards and the addition of the Editor of the Journal to the Membership Communications Committee. Also, staff was directed to study the feasibility of publishing a "Blue Book" Journal.
- Heard the report on the Committee on Planning and referred to the Commission on Continuing Education and Health Manpower a recommendation that further information be obtained on the possibility of having medical students, after their first year of medical school, work as assistants in physicians' offices during the summer. Referred back to the Planning Committee were recommendations to study the possibility of MSMA relinquishing its tax exempt status under IRS regulations for non-profit corporations and a report on Resolution No. 27, "Definition of Council Chairmanship."

Attorney General's opinion limits role of chiropractors

Missouri's 1,600 chiropractors have limited authority to diagnose illnesses and may use x-ray for diagnostic purposes, but cannot perform surgery or inject any drug or medicine, Attorney General John C. Danforth ruled Sept. 13.

Specifically, the Attorney General said Missouri law allows a chiropractor to diagnose for the limited purpose of determining whether the treatment that he can legally render to the patient is proper for the patient's disease.

Law, however, prohibits chiropractors from employing any diagnostic tests or procedures that involve surgery or administration or injection of any drug or medicine, said the opinion.

Also prohibited are any procedures that are exclusively reserved to the fields of obstetrics, osteopathy, surgery or medicine.

Conference on smoking set

Jesse L. Steinfeld, M.D., Surgeon General of the U.S., will be the keynote speaker at the Midwest Regional Conference on Smoking and Health for Health Professionals.

The conference, sponsored by the Bi-State Interagency Council on Smoking and Health of Metropolitan St. Louis with cooperation of Bi-State Regional Medical Program, will be held Oct. 24-25 at the Sheraton Jefferson Hotel, St. Louis.

Dr. Hoffman to visit

Continued from Page 1

Dr. Hoffman was inaugurated June 21 as the 127th president of the AMA during the annual convention in San Francisco.

The 67-year-old urologist was elected to the AMA Board of Trustees in 1968 after serving 11 years as a delegate to the AMA House of Delegates. Prior to being named president-elect, he served as secretary-treasurer of the AMA and secretary of the board.

Dr. Hoffman is past president of the West Virginia State Medical Association, the American Urological Association and the American Association of Clinical Urologists. He is a fellow in the American College of Surgeons and the International College of Surgeons.

GEORGE E. WAKERLIN, M.D., Ph.D., WILLIAM STONEMAN, III, M.D.
and **ARTHUR E. RIKLI, M.D.,** ***Columbia***

Physician's Assistants—Nurse Associates

An Overview

DURING THE PAST SEVERAL YEARS, there have been increasing interest and program activity in the United States in relation to physician's assistants, a new allied health profession category. At present, there are two physician's assistant training programs in Missouri, and a Missouri State Medical Association (MSMA) Ad Hoc Committee to Study Physician's Assistants recently published the results of a survey study in MISSOURI MEDICINE.[1] Also, the MSMA House of Delegates in 1971 passed a resolution favoring development of the physician's assistant concept and, early in 1972, a bill concerning physician's assistants was prepared but not introduced into the Missouri legislature.

Various regional medical programs have been active in relation to physician's assistant programs. Thus, the Arkansas Regional Medical Program held a conference on the subject in October, 1971, and Dr. William Stoneman, III, Coordinator of the Bi-State Regional Medical Program, is chairman of the MSMA Committee to Study Physician's Assistants. Recently, on recommendation of the Missouri Regional Medical Program (MoRMP) Project Review Committee, the MoRMP Regional Advisory Group requested Staff to review the status of physician's assistants, to investigate the need for physician's assistants in the state and to draft a policy statement in cooperation with Bi-State RMP. The review and statement were to include consideration of a report of the MSMA Committee to Study Physician's Assistants, the recommendations of which were published in the March, 1972 issue of MISSOURI MEDICINE.[2]

Accordingly, this overview has been prepared and deals with physician's assistants (and nurse associates) from the standpoints of history, definitions, training programs, legal aspects, evaluation, physician acceptance, allied health acceptance, patient and public acceptance, Missouri programs and needs and the future.

HISTORY

The physician's assistant concept is not completely new since physicians for many years have employed or otherwise utilized various types of health personnel to assist in making better quality care available to more people. Moreover, physicians for years have trained nurses and other personnel to perform tasks which would otherwise be required of the physician.

Somewhat analogous to the physician's assistant, though more autonomous, is the feldsher who first functioned in the Russian Army in 1700 and later in civilian life. Shortly before the 1917 Revolution, there were approximately one third more feldshers than physicians in Russia (30,000 vs 23,000). After 1917, the USSR decided that feldsherism was "second class rural medicine" and should be discontinued, but, subsequently, this decision was reversed because the need for health personnel was so great and recruitment of physicians for rural areas so diffi-

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Special Article

This complete overview deals with physician's assistants and nurse associates from the standpoints of history, definitions, training programs, legal aspects, evaluation, physician acceptance, allied health acceptance, patient and public acceptance, Missouri programs and needs and the future. Its purpose is to provide a comprehensive, up-to-date and balanced review of this important and timely subject.

Doctor Wakerlin is Central District Consultant, Missouri Regional Medical Program; Doctor Stoneman is Coordinator, Bi-State Regional Medical Program; and Doctor Rikli is Coordinator, Missouri Regional Medical Program.

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cult. Since then, the number of feldshers has increased and there are now 450,000 feldshers compared with 619,000 physicians (excluding the military) in the Soviet Union.

In 1925, Mary Breckenridge founded the Frontier Nursing Service to provide midwifery, nursing and health education to people in the mountain counties of eastern Kentucky. The first school for nurse-midwives in the United States was established several years later in New York City. Currently, there are nine such schools, including those at Hopkins, Yale and Columbia. The clinical services provided by nurse-midwives are supervised or directed by physicians. In the early 1930s, former military corpsmen were recruited to receive on-the-job training as physician's assistants in federal prisons. Since 1968, this training has been concentrated at the Medical Center for Federal Prisoners in Springfield, Mo.

In 1961, in order to relieve the growing shortage of physicians in the United States, Hudson[3] suggested the development of two groups of assistants to physicians from nonmedical, nonnursing personnel: (1) an advanced technician who would acquire considerable technical skill in hospital, medical and surgical procedures but would not be expected to exercise medical judgment and (2) an advanced medical assistant with special training intermediate between that of a technician and physician who would not only perform technical procedures but could take some degree of medical responsibility.

In 1965, a training program for pediatric nurse practitioners was developed by the University of Colorado Department of Pediatrics and School of Nursing. This program gave new emphasis and increased responsibility to clinical nursing. Since then, similar programs for so-called nurse associates or pediatric nurse associates have been established at other institutions. In 1966, Eugene A. Stead, M.D., then Chairman of the Department of Medicine at Duke University, inaugurated the first so-called physician's assistant training program which is two years in length and is based on the following definition of the assistant's role:

> "The physician's assistant is seen as a new category within the structure of the health field designed to provide a career opportunity for men functioning under the direction of doctors and with greater capabilities and growth potential than informally trained technicians. (The physician's assistant) would be trained to assist the doctor in his clinical or research endeavors in such a way as to facilitate better utilization of available physicians and nurses. . . . In patient care areas, the physician's assistant will be able to draw blood, start and regulate intravenous infusions, intubate the gastro-intestinal tract, and do other procedures classically performed by the doctor. He will be trained to monitor vital signs, give medications, and keep progress records—skills classically performed by nurses. He will also be trained to operate certain diagnostic and therapeutic instruments such as an electrocardiograph and respirator, as well as to perform routine laboratory studies, skills usually performed by technicians."

Since then, a number of similar programs have been established at other educational institutions.

In 1968, the University of Washington School of Medicine, with sponsorship of the Washington State Medical Association and encouragement from the American Medical Association (AMA), established the so-called MEDEX (MEDicine EXtension) program primarily to assist physicians in rural Washington. The training involves three months of academic courses, followed by 12 months of preceptorship during which there are three days of formal education per month. The preceptor for each trainee is the physician by whom the trainee will subsequently be employed. MEDEX activities include taking histories, making physical examinations, applying and removing casts, suturing minor lacerations, interpreting laboratory results and performing other tasks delegated by the employing physician. Again, a number of institutions have established programs following this educational pattern.

Recruitment for these two types of physician's assistant programs has been importantly facilitated by MEDIHC (Military Experience Directed Into Health Careers), a federally-financed recruitment program directed to recently-discharged independent duty medical corpsmen who have numbered as many as 30,000 per year in the past several years.

Likewise, in recent years, a number of new programs for nurses similar to the pediatric nurse practitioner (associate) programs previously referred to have been developed in other medical fields. As a result, clinical nurse specialists are now providing clinical services in relation to various branches of internal medicine, (e.g., cardiology) as well as surgery and psychiatry. Finally, in 1967, the University of Colorado established a program to train child health associates. Persons with two years of college but little or no health background are prepared in three aditional years of training to diagnose, counsel and prescribe (within limitations set by new Colorado legislation) for well and sick pediatric patients.

Definitions

The term, physician's assistant, is currently somewhat confusing since it has been commonly used *specifically* with reference to the type of health care professional developed by Duke University and the University of Washington and sometimes *generically* to include various types of nurse practitioners, as well as technologists trained to assist physicians in various specialties.

In an attempt to clarify this picture, the Board on Medicine of the National Academy of Sciences in May, 1970, described Types A, B and C assistants. The Type A assistant is essentially the Duke University professional and is described by the Board on Medicine as follows:

> "The Type A assistant is capable of approaching the patient, collecting historical and physical data, organizing these data, and presenting them in such a way that the physician can visualize the medical problem and determine appropriate diagnostic or therapeutic steps. He is also capable of assisting the physician by performing diagnostic and therapeutic procedures and coordinating the roles of other, more technical, assistants. While he functions under the general supervision and responsibility of the physician, he might under special circumstances and under defined rules, perform without the immediate surveillance of the physician. He is, thus, distinguished by his ability to integrate and interpret findings on the basis of general medical knowledge and to exercise a degree of independent judgment."

The Type B assistant is essentially the technologist trained to assist physician specialists and is described as follows:

> "The Type B assistant, while not equipped with general knowledge and skills relative to the whole range of medical care, possesses exceptional skill in one clinical specialty or, more commonly, in certain procedures within such a specialty. In his area of specialty, he has a degree of skill beyond that normally possessed by a Type A assistant and perhaps beyond that normally possessed by physicians who are not engaged in the specialty. Because his knowledge and skill are limited to a particular specialty, he is less qualified for independent action. An example of this type of assistant might be one who is highly skilled in the physician's functions associated with a renal dialysis unit and who is capable of performing these functions as required."

According to the Board on Medicine:

> "The Type C assistant is capable of performing a variety of tasks over the whole range of

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> medical care under the supervision of a physician, although he does not possess the level of medical knowledge necessary to integrate and interpret findings. He is similar to a Type A assistant in the number of areas in which he can perform, but he cannot exercise the degree of independent judgment of the Type A assistant."

Thus far, this terminology for physician's assistants has not been generally adopted nor has a group of recently proposed names for generalist and specialist physician's assistants.[4]

The following definition of a physician's assistant was recently endorsed by the AMA, American College of Physicians (ACP), American Academy of Family Physicians (AAFP) and the American Society of Internal Medicine (ASIM):

> "The assistant to the primary care physician is a skilled person qualified by academic and clinical training to provide patient services under the supervision and responsibility of a doctor of medicine or osteopathy who is, in turn, responsible for the performance of that assistant. The assistant may be involved with the patients of the physician in any medical setting for which the physician is responsible."

The Regional Advisory Groups of Bi-State and Missouri RMP's both recommend that "practicing" be inserted before "doctor of medicine or osteopathy" in this definition.

Moreover, the AMA is appropriately concerned over the growing practice of using the term "physician's associate" instead of "physician's assistant," since the former term has been commonly used to designate another physician. Accordingly, the AMA recommends that "physician's associate" be used only to denote another physician. The AMA viewpoint, however, is not acceptable to the current director of the Duke physician assistant training program.[5]

The American Osteopathic Association (AOA) has likewise evidenced recent interest in this field as shown by its Committee on Allied Health Education adoption of a resolution that the AOA will recognize only "allied health training programs which are accredited by a recognized national agency such as the U. S. Office of Education, the National Commission on Accrediting, etc."

Specific job descriptions also have been developed recently for personnel to assist orthopedists and urologists. The former job description has been endorsed by the American Academy of Orthopedic Surgeons and the AMA and the latter by the American Urological Association and the AMA. In addition, the following established allied health occupations have training programs accredited by the AMA:

Certified Laboratory Assistant
Cytotechnologist
Histologic Technician
Inhalation Therapy Technician
Medical Assistant
Medical Record Librarian
Medical Record Technician
Medical Technologist
Nuclear Medicine Technologist
Nuclear Medicine Technician
Occupational Therapist
Physical Therapist
Radiation Therapy Technologist
Radiologic Technologist

These occupations are described in *Horizons Unlimited*, a handbook available from the AMA.

Occasionally, the term "medical assistant" is used as being synonymous with physician's assistant. As indicated in the above AMA list, the medical assistant (sometimes called medical office assistant) is an established allied health occupation and is not to be confused with the physician's assistant. The medical assistant usually assists the physician in his office or the hospital by performing administrative or clinical assignments determined by specific training. Duties may include preparing patients for the physician's examination, cleaning and sterilizing gloves and instruments, assisting in the collection of specimens, performing simple laboratory tests and assisting with treatments prescribed by the physician. If there is only one medical assistant in the office, the duties usually also include receiving patients, making appointments, completing insurance forms, typing letters, collecting fees and assisting in keeping medical records.

In recent years, the American Academy of Pediatrics (AAP) has been very active in formalizing an expanded role for nurses in primary care. This has been done in consultation with the American Nurses' Association, the National League for Nursing, the AMA, the Association of American Medical Colleges and other organizations. The AAP defines the pediatric nurse associate as a registered nurse who has completed a recognized pediatric nurse associate program and works primarily in a physician's office, clinic or health center involved in the ambulatory care of children. She works under the supervision of a physician in accordance with standing orders. Her responsibilities may include obtaining medical and health histories, performing portions of the physical examination, giving information and counsel and managing health problems as determined by the physician. The latter two may involve advice on problems of child rearing, feeding and growth and development; home visits; answering predetermined questions from parents; and identifying community resources for helping children and their families.

Accordingly, in most acceptable current usage, the type of health care professional developed by Duke University and the University of Washington and involved in primary patient care or family practice should be referred to as a physician's assistant, generalist physician's assistant or assistant to the primary care physician; the health professional who is qualified to assist a physician practicing one of the medical or surgical specialties should be called a specialist physician's assistant; and a baccalaureate nurse who is qualified for an expanded clinical role in family medicine, pediatrics, home care, school health or another medical field should be termed a clinical nurse associate.

TRAINING PROGRAMS

The keynote of current physician's assistant-clinical nurse associate training programs is variety. Prerequisites vary from high school graduation or experience as a medical corpsman to attainment of a bachelor's degree. Educational settings include medical schools, medical centers, hospitals, VA hospitals, clinics, colleges and universities. Length of training varies from eight weeks to five years. Credentials awarded vary from none to certificates and to associate, baccalaureate or higher degrees. Employment settings range from physicians' offices to hospitals, emergency rooms and clinics, and the level of functioning ranges from the purely technical to the definitely judgmental.

The most complete compilation of physician assistant-nurse associate educational programs to date is that published in March, 1971 by the Division of Manpower Intelligence of HEW and entitled *Selected Training Programs for Physician Support Personnel.* This publication includes 125 programs in 35 states. Seventy-eight of the programs accept students with varied qualifications and 47 accept only nurses. At least 60 of the programs were operational in March 1, 1971, with approximately 1,000 students and an equal number of graduates. Thirty-three of the 125 programs are for physician's assistants of the Duke University or University of Washington (MEDEX) types. Nine are for family

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nurse practitioners, and 18 are for pediatric nurse practitioners (associates) or other types of nurse practitioners. Fifty-one programs are for specialist physician's assistants and the remaining programs are not definitely classifiable. The list is acknowledged to be incomplete and publication of a new edition is anticipated for 1972. In addition to these programs, 18 VA hospitals are training PA's (in cooperation with ten colleges and medical centers) to perform diagnostic and therapeutic tasks under physician supervision.

Three of the foregoing listed programs are excerpted for this overview, viz., the Duke University physician's assistant, the University of Washington's MEDEX and the University of Colorado pediatric nurse practitioner as follows:

I. *Program Title:*
Physician's Associate

Institution:
Duke University School of Medicine
Durham, N. C. 27706

Program Director:
D. Robert Howard, M.D.
Assistant Professor of Comm. Health Serv.
Department of Community Health Sciences

Curriculum:

The educational curriculum covers a period of 24 months. The preclinical portion covers an academic period of 36 weeks and is divided into three phases rather than two semesters. The first and third phases are each six weeks in duration and the second phase, 24 weeks. The first phase includes courses in the history, philosophy, and ethics of medicine, basic clinical laboratory, medical terminology, chemistry, animal experimentation and community health. The second phase includes microbiology, anatomy, physiology, biology, pharmacology, physical evaluation, diagnostic procedures, animal surgery and clinical psychiatry. The third phase includes electrocardiology, radiology, data processing and patient evaluation.

The clinical curriculum of 15 months consists of nine months of required rotations and six months of elective rotations. It is during this aspect of the training program that the student is expected to develop expertise in the application of his preclinical learning. Areas covered are general medicine, pediatrics, surgery, internal medicine, allergy, respiratory disease, cardiology, dermatology, endocrinology, gastroenterology, hematology, hyperbaric medicine, industrial medicine, nephrology, neurology, radiology, neurosurgery, ophthalmology, orthopedic surgery, otolarynology, plastic surgery and urology.

Degree or Certificate Awarded:

A "Physician's Associate" Certificate for completion of the two-year program; a B.S. degree plus certification after four years of training.

Entrance Requirements:

A high school diploma or its equivalent. Experience of at least two years in the health field (such as corpsman, LPN).

II. *Program Title:*
MEDEX

Institution:
University of Washington
Department of Preventive Medicine
School of Medicine
Seattle, Wash. 98105

Program Director:
Richard A. Smith, M.D.
Associate Professor of Preventive Medicine

Curriculum:

After training at the medical school for three months, the MEDEX is assigned for a year to a preceptor who is a physician in general practice. For these 12 months, he assists the physician by learning and applying primary care skills under his close supervision.

Degree or Certificate Awarded:

Certificate indicating completion of the MEDEX training program.

Entrance Requirements:

Former medical corpsmen trained to a level of independent performance.

III. *Program Title:*
Pediatric Nurse Practitioner

Institution:
University of Colorado
School of Nursing
Denver, Colo. 80220

Program Director:
Elda R. Popiel, R.N.
Professor, School of Nursing

Curriculum:

The intensive 16-week Pediatric Nurse Practitioner Program provides an opportunity for nurses to expand their role in providing health care for children. The focus of study is the well child in the family, school and community settings. Academic and clinical study areas include University of Colorado Medical Center and selected health care facilities in the community of Denver. The course titles of the areas of study are as follows:

Evaluation of Child Health (eight weeks)—Emphasis is on developing the nurse's skills in taking the health history, performing physical examinations, analyzing health problems and in health counseling. Classroom work and practice in community child care center are offered concurrently;

The Nurse's Role in Community Child Health (eight weeks)—The focus of this course is on nursing management of common physical, psychosocial and developmental problems of childhood with continued development of the nurse's evaluation and counseling skills. Practice in community child care settings continues. The nurse studies patterns of independent nursing practice which effect changes in health care systems.

Degree or Certificate Awarded:

Certificate stating they have satisfactorily completed the program.

Entrance Requirements:

Graduation from a National League for Nursing accredited baccalaureate program, employment in a setting concerned with health of children and their families in the community and availability for the entire educational program.

Specialist physician's assistant programs, in addition to those mentioned under DEFINITIONS, include physician's assistants in diabetes, intensive care, coronary care, oncology, gastroenterology, neurosurgery, dermatology, nuclear medicine, anesthesia, cardiopulmonary disease, EEG, emergency service, radiologic dosimetry and ophthalmology. Indeed, the number of categories of health personnel has so multipled since 1945 that there are now some 245 health occupations.

In many of these new educational programs, the principles of equivalency and proficiency are utilized to provide career mobility, laterally

(Continued on page 828)

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Statement of Aims of the Committee and the Costs of Medical Care, Its Causes and Controls

This committee (Physician-Hospital-Insurance Liaison Committee) comprises representatives of organized medicine, insurance, the Blues and the Hospital Association of Metropolitan St. Louis, all providers of medical care and all engaged in private business, all with a similar interest in the most efficient delivery of the best medical care. There are some differences, of course, as the physicians have the responsibility for patient care, the hospitals provide the place of care and the ancillary services and the Blues and the insurance companies pay the major share of the bills. But the failure of any one segment to keep in sight the primary purpose of providing the best and most efficient medical care leads to utilization committees, peer review and more government intervention. Of greatest concern to the general welfare is the alarming rise in the cost of medical care, and that segment taking the most adverse publicity for this is the medical.

Hospitals blame the high cost of labor and modern, expensive facilities; insurance companies simply pass on the increased cost; the physician absorbs abuse for over-utilization and expensive care, and he appears as the only one who comes under the scrutiny for tighter control. Although the finger is never pointed at the consumer and his fault in the system, all providers of medical care know that the consumer is the source of demand for high-cost care because to him it is low-cost care. That is to say, he demands the use of insurance-covered hospital services when outpatient non-insured services could do the job. Physicians have acquiesced to the consumer's pressure.

As physicians, we cannot escape justifiable criticism. We have encouraged the regular check-up, the periodic physical examination, without sufficient demonstration of its value to warrant the cost. We—physicians and hospitals—have enjoyed the proceeds of this easy, luxurious type of medicine, nice if you can afford it, but not a medical necessity. The trouble was that what the physician knew to be luxury, the public and big business took as a necessary part of the "right to good health." Those physicians who cooperated in the trend to hospitalization for "The Executive Physical Examination" fostered the concept that this was the best kind of medicine, and through habit, may have come to believe so themselves. Residents in training, subjected to this expensive kind of medicine, grow up in the thought that this is good medicine and, hence, they perpetuate the practice.

Therefore, because the physician has contributed in some measure to the consumer's attitude toward the use of the hospital for the non-sick, he bears the onus of correcting this impression. I would hazard a guess that a small minority of physicians have check-ups periodically for themselves. Through a public relations program directed at the physician, as part of a concerted, area-wide effort, I believe we can influence physicians to cooperate in returning hospitals to their original role as places for the sick. Every physician has been angered by his inability to find bed space for a sick patient when he knows that many hospital beds are needlessly occupied by "workup" patients. But he must also understand that by keeping the non-sick patients out of the hospital, he is not just saving money for the insurance companies; he is contributing to a reduction in the overall cost of medical care, and he is reducing the need for utilization committees, peer review and government control.

We are concerned that Labor and Management may not sufficiently concern themselves about the overall cost of medical care since they teach their policyholders to get their tests done in the hospital in order to receive insurance-covered benefits. How many times have physicians heard the refrain " 'my shop steward' or 'my personnel manager' said that if I'm in the hospital my insurance company will pay for it." There is no way that insurance companies can block this type of overutilization because they can't even recognize it, only the physician can. The individual, of course, is concerned only that there is no out-of-pocket expense for himself, but he along with Labor and Management must suffer to be educated and realize the full implications of this attitude upon society and accept their share of responsibility for the high cost of medical care. Labor and Management have bargained for health care with too little concern for the overall effects on the cost of this care as it relates to our society in general.

What can the insurance companies do? Although some attempts have been made to develop programs offering outpatient coverage, the lack of some system of quality control leaves the threat of overutilization which would eliminate the savings otherwise anticipated. This is an area, however, that insurance companies in conjunction with physicians must explore more thoroughly and with more dispatch than we have seen to date. Insurance companies developing full-pay programs for medical services should work in close consultation with organized medicine.

In a cooperative effort of this kind, they can keep records to show the results of a cost control campaign and promise the public a reduction in hospital insurance rates or an extension of benefits if the campaign is successful. They could further explore with hospitals the feasibility of subsidizing motel-like accommodations adjacent to hospitals where the patients from out of town or patients requiring extensive studies could be housed at low cost and covered by insurance.

Many of the area hospitals have experienced capacity operation. The press for beds has led to attempts to improve the efficiency of their use, but over-capacity operation creates a problem in delivery of high-quality service, which may be responsible for many complaints registered by patients as well as physicians. Hospitals, along with their medical staffs, working primarily through utilization committees, have tried to reduce the unnecessary use of beds, to reduce waiting lists for admission, to reduce long stays, to have tests done on the day of admission and in other ways tried to meet the demands for service placed upon them. But, they have not emphasized that hospitals exist primarily for the care of the sick. Since the physician, not the hospital, selects patients for admission, it falls to the responsibility of the physicians to see to it that only sick patients or diagnostic problems are hospitalized.

Although the cost of individual patient care may rise if hospital beds are delegated to the sick and the high profit, and short stay "work-up" patients and removed, there should result an overall reduction in need for additional hospital beds to service any community and hence a saving in the overall health care dollar.

The present system of medical jurisprudence has made a major contribution to increasing the cost of medical care. The large number of malpractice suits and the exorbitant awards that have been granted have had the effect (1) of increasing the cost of malpractice insurance to such a degree that the cost must be passed on through increased charges and (2) of making physicians too legal-minded, so that they practice defensive, "legal" medicine rather than good medicine. This means that medically unnecessary x-rays and tests are ordered, e.g., a stubbed toe or a bump on the head that may be treated in a physician's office for $10 may cost much more when these tests are added. The legal profession must at least realize the adverse effects it has had on the overall cost of medical care.

The accompanying statement was made by the Physician-Hospital-Insurance Liaison Committee representing Blue Cross; Blue Shield; Eastern Missouri Chapter, Health Insurance Council; Hospital Association of Metropolitan St. Louis; St. Louis County Medical Society; and St. Louis Medical Society.

We have established this committee as a meeting ground for physicians, insurance executives and hospital representatives, and we must work together, not individually or at cross purposes. We have too much at stake, and there is little time to make a national impact.

Now is the time to begin a Public Relations program coordinated between the three of us and the consumer. We realize that we are not the only ones concerned with these problems, who have been working to these ends. Utilization Committees of the individual hospitals and the Health Care Foundation are examples of continuing attempts to do something, but we are the first to bring the three major groups involved in the delivery of health care together in regular meetings and to propose joint action. We further anticipate the need to possibly involve the Joint Commission on Accreditation of Hospitals in our discussions.

There is one individual who has the power in his hands to largely rectify the spiraling cost of medical care and he is the physician. He can exercise his power by concentrating only on the practice of good medicine, by not hospitalizing people who don't require it, by not ordering tests that are not needed, by not practicing defensive medicine, by not being afraid to tell the court he didn't think a given test would be contributory or pertinent to the patient's health, by not over-treating or over-investigating.

medical melange

Notes of interest from Here . . . . and There

Gov. Warren E. Hearnes has appointed **Dr. G. Donald Shull** of Jefferson City to the State Board of Nursing Home Administrators. Doctor Shull, whose term runs to 1975, succeeds **Dr. William A. Bloom** of Fayette who resigned.

Dr. David F. Gorelick, Springfield, has been appointed Medical Director of the Springfield Regional Red Cross Blood Center. A pathologist, Doctor Gorelick has been associated with the Red Cross and the Blood Program as a volunteer and has served as Chairman of the Advisory Council for the Blood Program for Greene County Medical Society. Doctor Gorelick succeeds **Dr. John Williams, Jr.**, Springfield.

Dr. Vallee L. Willman, St. Louis, is one of four U. S. experts on ischemic heart disease who were scheduled to travel to Moscow in September for two weeks of cooperative studies with Russian heart disease experts. The visit is part of the U. S.-U. S. S. R. Cooperative Health Program on Disease signed during President Nixon's stay in Moscow last May. Doctor Willman is professor and chairman of the Department of Surgery, St. Louis University School of Medicine. The U. S. team includes Prof. T. Joseph Reeves, chairman of the Department of Medicine, Medical College of Alabama in Birmingham; Prof. Jerome Cornfield, professor of biostatistics at George Washington University; and Dr. Peter L. Frommer, chief of the Myocardial Infarction Branch of the National Heart and Lung Institute in Bethesda, Md.

The American Association for Clinical Immunology and Allergy in Omaha, Neb. has announced that **Dr. James W. Willoughby** and **Dr. Stanley L. Goldman** of Kansas City have been elected officers of the Association's North Central Region.

Dr. Robert D. Henry, Harrisonville, has been selected for inclusion in the 1972 edition of "Outstanding Young Men of America." Doctor Henry is a past-president of the Harrisonville Jaycees.

Dr. Robert Gazali, Indonesian Public Health Officer who is in the United States to review American Public Health procedures and policies, was a recent visitor at the Missouri State Chest Hospital in Mt. Vernon. He was accompanied by Mr. **John P. Shimmens**, Consultant on Immunization Activities, Bureau of Communicable Diseases, Division of Health of Missouri.

WASHINGTON

The Republican platform for the 1972 presidential campaign has planks opposing compulsory national health insurance and legalization of marijuana.

The Democratic platform advocates a national health insurance program for all Americans financed and administered by the federal government. It does not mention the marijuana issue.

The American Medical Association's recommendations on the Republican health care plank were presented by Donald E. Wood, M.D., a member of the AMA Board of Trustees, at a convention subcommittee hearing before the platform was drafted.

Doctor Wood expanded on a "theme of priority setting and realistic acknowledgment of fiscal limitations." "We believe that this is the only possible foundation for sound public policy in setting our health and other national goals," Dr. Wood said.

"In setting our health goals, it is not necessary to destroy a system that has given this nation its high level of health and scientific achievement. Our goals will be best attained by building upon the strengths of this system. What is necessary is that all of us—government, public and the professions—work together to find solutions that will not only meet the needs of today but will assure a system that even more successfully will meet the needs of tomorrow."

Text of Republican health care plank is as follows:

Our goal is to enable every American to secure quality health care at reasonable cost. We pledge a balanced approach—one that takes into account the problems of providing sufficient medical personnel and facilities.

Last year, President Nixon proposed one of the most all-inclusive health programs in our history, but the opposition Congress has dragged its feet and most of this program has yet to be enacted into law.

To increase the supply of medical services, we will continue to support programs to help our schools graduate more physicians, dentists, nurses and allied health personnel, with special emphasis on family practitioners and others who deliver primary medical care.

We will also encourage the use of such allied personnel as doctors' assistants, foster new area health education centers, channel more services into geographic areas which now are medically deprived and improve the availability of emergency medical care.

We note with pride that the President has already signed the most comprehensive health manpower legislation ever enacted.

To improve efficiency in providing health and medical care, we have developed and will continue to encourage a pluralistic approach to the delivery of quality health care including innovative experiments, such as health maintenance organizations. We also support efforts to develop ambulatory medical care services to reduce hospitalization and keep costs down.

To reduce the cost of health care, we stress our efforts to curb inflation in the economy; we will also expand the supply of medical services and encourage greater cost consciousness in hospitalization and medical care. In doing this, we realize the importance of the doctor-patient relationship and the necessity of insuring that individuals have freedom of choice of health providers.

To assure access to basic medical care for all our people, we support a program financed by employers, employees and the federal government to provide comprehensive health insurance coverage, including insurance against the cost of long-term and catastrophic illness and accidents and renal failure which necessitates dialysis, at a cost which all Americans can afford. The National Health Insurance Partnership Plan and the Family Health Insurance Plan proposed by the President meet these specifications. They would build on existing private health insurance systems, not destroy them.

We oppose nationalized compulsory health insurance. This approach would at least triple in taxes the amount the average citizen now pays for health and would deny families the right to choose the kind of care they prefer. Ultimately, it would lower the overall quality of health care for all Americans.

We believe that the most effective way of improving health in the long run is by emphasis on preventive measures.

The serious physical fitness problem in our country requires urgent attention. The President recently reorganized the Council on Physical Fitness and Sports to increase the leadership of representatives of medicine, physical education, sports associations and school administrations. The Republican Party urges intensification of these efforts, particularly in the Nation's school systems, to encourage widespread participation in effective physical fitness programs.

We have initiated this Nation's first all-out assault against cancer. Led by the new National Cancer Institute, the drive to eliminate this cruel killer will involve federal spending of nearly $430 million in fiscal year 1973, almost twice the funding of just two years ago.

We have also launched a major new attack on sickle cell anemia, a serious blood disorder afflicting many black Americans, and developed a comprehensive program to deal with the menace of lead-based paint poisoning, including the screening of approximately 1,500,000 Americans.

We support expanded medical research to find cures for the major diseases of the heart, blood vessels, lungs and kidneys—diseases, which now account for over half the deaths in the United States.

We have significantly advanced efforts to combat mental retardation and established a national goal to cut its incidence in half by the year 2000.

We continue to support the concept of comprehensive community mental health centers. In this fiscal year, $135 million—almost three times the 1970 level—will be devoted to the staffing of 422 community mental health centers serving a population of 56 million people. We have intensified research on methods of treating mental problems, increasing our outlays from $76 million in 1969 to approximately $96 million for 1973. We continue to urge extension of private health insurance to cover mental illness.

We have also improved consumer protection, health education and accident prevention programs. And in Moscow this year, President Nixon reached an agreement with the Soviet Union on health research which may yield substantial benefits in many fields in the years ahead.

PSYCHIATRY

"You must remember that doctors slap ALL babies."

Excerpts from Republican drug abuse plank are as follows:

The permissiveness of the 1960s left no legacy more insidious than drug abuse. In that decade, narcotics became widely available, most tragically among our young people. The use of drugs became endowed with a sheen of false glamour identified with social protest.

By the time our Nation awakened to this cancerous social ill, it found no major combat weapons available.

Soon after we took office, our research disclosed there were perhaps hundreds of thousands of heroin users in the United States. Their cravings multiplied violence and crime. We found many more were abusing other drugs, such as amphetamines and barbiturates. Marijuana had become commonplace. All this was spurred by criminals using modern methods of mass distribution against outnumbered authorities lacking adequate countermeasures.

We quickly launched a massive assault against drug abuse.

We intercepted the supply of dangerous drugs at points of entry and impeded their internal distribution. . . .

To inhibit the distribution of heroin in our own country, we increased the law enforcement budget for drug control more than ten times—from $20 million to $244 million. . . .

We established the "Heroin Hot Line"—a nationwide toll free phone number (800/368-5363)—to give the public a single number for reporting information on heroin pushers. . . .

To alert the public, particularly the youth, to the dangers of drugs, we established a National Clearinghouse for Drug Abuse Information in 1970 as well as a $3.5 million Drug Education and Training Program.

We realize that the problem of drug abuse cannot be quickly solved, but we have launched a massive effort where practically none existed before. . . .

We pledge to seek further international agreements to restrict the production and movement of dangerous drugs.

We pledge to expand our programs of education, rehabilitation, training and treatment. We will do more than ever before to conduct research into the complex psychological regions of disappointment and alienation which have led many young people to turn desperately toward drugs.

We firmly oppose efforts to make drugs easily available. We equally oppose the legalization of marijuana. We intend to solve problems, not create bigger ones by legalizing drugs of unknown physical impact.

We pledge the most intensive law enforcement war ever waged. We are determined to drive the pushers of dangerous drugs from the streets, schools and neighborhoods of America.

* * *

Top American and Soviet health officials announced they will expand a joint health research project to include viral diseases, provision of health services, and occupational health.

The action was taken under a May 25 agreement between the two countries to cooperate in studying cancer, heart disease and environmental problems. Groundwork for the program was laid by President Nixon and Soviet leaders at the Moscow summit meeting.

The broadened agreement was described at a briefing by Soviet Health-Minister Boris V. Petrovsky and Dr. Roger O. Egeberg, co-chairman with Petrovsky of the U. S.-Soviet Joint Committee on Health Cooperation.

"All manner of obstacles are being removed and a very solid foundation built for cooperation between the two countries," said Petrovsky in summing up the joint program.

Petrovsky also said the group has under advisement a suggestion by President Nixon, with whom he met earlier, to add arthritis to the joint research program.

HEW Secretary Elliot L. Richardson also said Dr. Bertram S. Brown, Director of the National Institute of Mental Health, will visit the Soviet Union in September to discuss schizophrenia research.

Three experimental cancer drugs developed in the Societ Union will be given trials of effectiveness on American patients starting early next year.

The United States also is sending the Soviet Union three experimental drugs:

Richardson, underscoring his attitude of caution about the prospective benefit of the drugs, said that they were new and had not been widely tested.

Please Note: The AMA Division of Communications has notified MISSOURI MEDICINE that the chairman of the Committee which recommended a study of acupuncture to the National Institutes of Health is *John J. Bonica,* M.D. and not John J. Donican as stated in its release for the September issue. Doctor Bonica is professor and chairman of the Department of Anesthesiology of the University of Washington School of Medicine in Seattle.

ANNUAL FALL PANEL DISCUSSION

"Ventilatory Assistance"

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The nucleus of the Poison Information Center is a card file. "It tells us the most toxic substances in a product, or if nothing in the product is harmful," Dr. Clement Brooke, director of the center, says. Commercial and organic chemical products are arranged alphabetically by brand name on cards which contain a list of the ingredients, the dose needed to be dangerous, and possible antidotes.

The files are constantly expanded and updated by a Washington, D. C., poison information "clearing house" which distributes new information about product toxicity. Most major chemical and cosmetic companies also supply poison information centers with lists of their products' current ingredients and antidotes to any poisonous substances, Dr. Brooke says.

Once the poison's identity is confirmed, other specialized hospital staff take over if the patient is brought to the Medical Center. Treatment may range from pumping the victim's stomach to cleansing a drug from the blood by dialysis with an artificial kidney machine.

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lergic myocarditis; *Gastrointestinal reactions:* Naus
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rexia, pancreatitis and stomatitis; *C.N.S. reactio*
Headache, peripheral neuritis, mental depress
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and insomnia; *Miscellaneous reactions:* Drug fe
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Periarteritis nodosa and L.E. phenomenon have
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*Koch-Weser, J., *et al.*: *Arch. Intern. Med.*, *128* 399, 1971.

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Continuing Education Coming Events

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Oct. 5-6	**Symposium: Modern Practice Management—The Art and Business of Medical Practice** Postgraduate Medical Study K.U. School of Medicine, Kansas City, Kan. 66103
Oct. 23-25	**50th Annual Fall Clinical Conference** Kansas City Southwest Clinical Society in cooperation with the School of Medicine and Division for Continuing Education, University of Missouri-Kansas City Hotel Muehlebach, Kansas City
Oct. 24-25	**Symposium: Medicine and Religion—Dealing With Aging and the Aged** Postgraduate Medical Study K.U. School of Medicine, Kansas City, Kan 66103
Oct. 26-27	**Symposium: Radiologic Technology** Postgraduate Medical Study K.U. School of Medicine, Kansas City, Kan. 66103
Nov. 6-9	**Symposium: Internal Medicine** Postgraduate Medical Study K.U. School of Medicine, Kansas City, Kan. 66103
Nov. 8-10	**Recent Clinical Advances in Pediatrics** *Sponsors:* Danciger Institute for the Health Sciences; Departments of Pediatrics at Children's Mercy Hospital, St. Luke's Hospital and Menorah Medical Center; Missouri Chapter of the American Academy of Pediatrics; and Kansas City Academy of Family Physicians Children's Mercy Hospital, Kansas City
Nov. 17-18	**M.D. Day** Continuing Education, M.U. School of Medicine Columbia 65201
Dec. 6-7	**The Heart, 1972** School of Medicine and Division for Continuing Education, University of Missouri-Kansas City; Kansas City Southwest Clinical Society; Missouri Regional Medical Program Children's Mercy Hospital, Kansas City

Emergency Care and Transportation Course to Be Held on November 26-29 in St. Louis

A four-day training course on emergency care and transportation of sick and injured persons will be held in St. Louis on Nov. 26-29, 1972 at the Chase-Park Plaza Hotel.

Sponsored by the American Academy of Orthopaedic Surgeons, the course is designed for ambulance attendants, firemen, police officers, nurses, safety engineers, rescue squad members and others who work with those requiring emergency attention. Dr. Marshall B. Conrad, assistant professor of orthopaedic surgery at Washington University Medical School, will direct the comprehensive training course.

With faculty members from Washington University and St. Louis University Medical schools, the lectures and work practice sessions will be given in cooperation with the schools, St. Louis Medical Society, St. Louis Chapter of the American Red Cross and St. Louis Fire Department.

Physicians and others will speak and demonstrate on a wide variety of emergency medical situations. Traffic control at the accident scene, extrication from crushed autos, techniques of lifting and carrying and care and complications of injuries are among the procedures taught in lectures and practice sessions.

For information and registration forms, contact Dr. Marshall B. Conrad, 4960 Audubon Ave., St. Louis, Mo. 63110.

Kansas City's 50th Annual Fall Clinical Conference Scheduled for October 23-25

October 23-25 are the dates for the 50th Annual Fall Clinical Conference to be presented by the Kansas City Southwest Clinical Society in cooperation with the University of Missouri-Kansas City School of Medicine and Division for Continuing Education.

The Conference, which will be held at the Muehlebach Hotel in Kansas City, will feature symposia on Immunology; The Battered Adult; Geriatrics, Common Clinical Problems; Gastrointestinal Problems; Hypertension; and Social Medicine—VD and Sexual Problems. A "Day of Cardiology" will be cosponsored by the Kansas City Heart Association and the Missouri Heart Association. There also will be 13 breakfast seminars.

Irvine H. Page, M.D. of Cleveland, Ohio will present the Edward Holman Skinner Memorial Lecture.

Additional information may be secured by writing to the Kansas City Southwest Clinical Society, 2220 Holmes St., Kansas City 64108.

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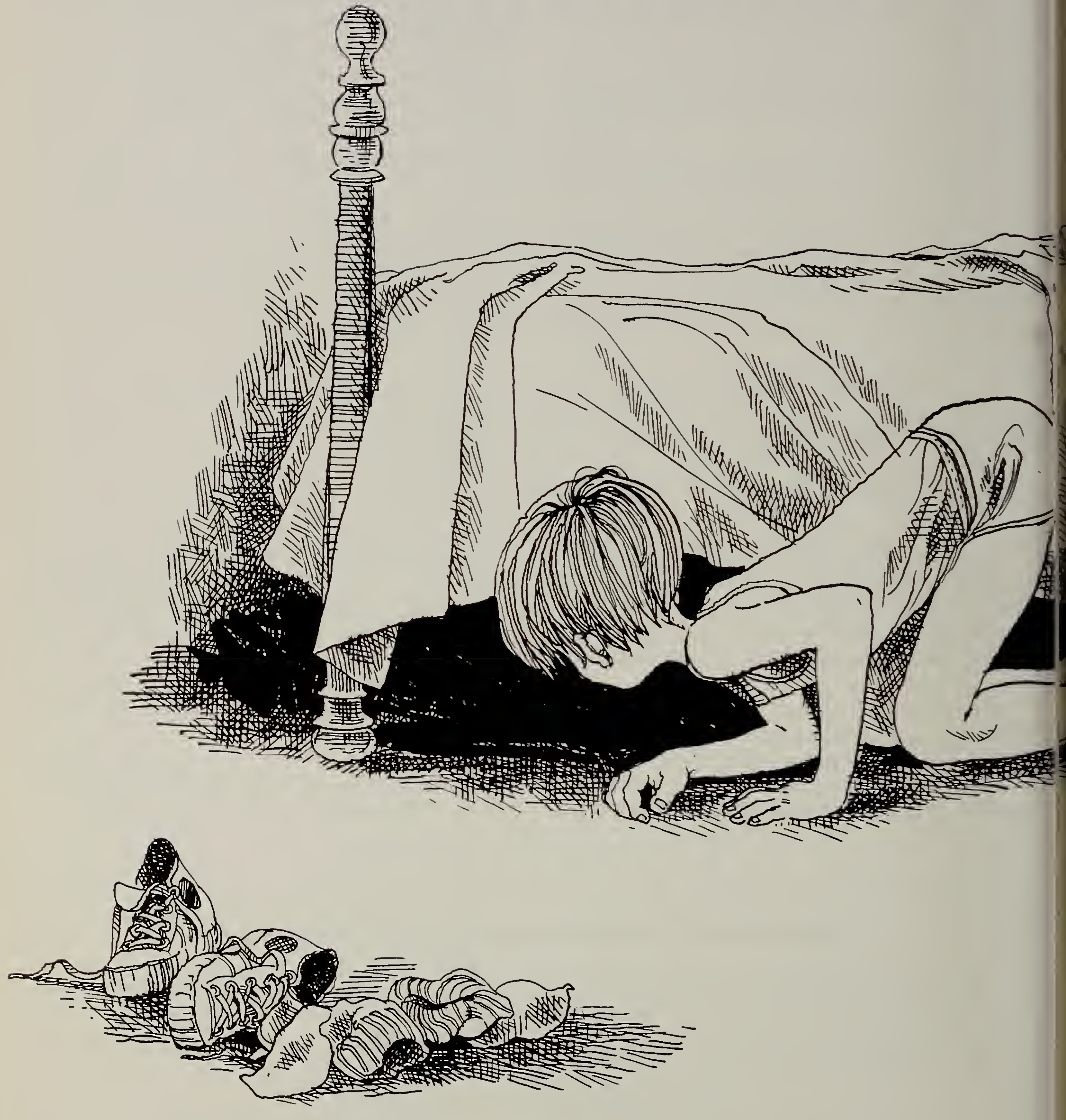

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Volume 69, Number 10—October, 1972

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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JOHN F. MAHER, M.D., KARL D. NOLPH, M.D.,
CEDRIC W. BRYAN, M.D. *and* CLARENCE E. GRIM, M.D., *Columbia*

Etiology and Distribution of Renal Disease in Central Missouri

Case Reports

Since Bright's description of nephritis,[1] greater distinction has been made between the varied causes of renal disease. Yet, many physicians continue to apply the diagnostic label of Bright's Disease or, more technically, glomerulonephritis to nearly all forms of medical renal disease.

Well-known and established nephrology centers usually do not get a true cross section of nephrology cases referred to them because the special interest and capabilities of the nephrologists are well-recognized locally and referrals of such problems are often encouraged. Such centers, therefore, are not in a position to identify the incidence of different types of renal disease.

Two years ago, a new Division of Nephrology of the Department of Medicine of the University of Missouri was assembled. The division faculty has a broad interest in nephrology. Consultation has been provided to the physicians of the clinical departments at the University and patients have been referred from all areas of the state. Experience with pediatric nephrology has been included. The distribution of patients, therefore, has less bias than is likely at other nephrology centers and may be more representative of the full spectrum of clinical nephrology.

Diagnoses were made on the basis of clinical judgement, supported where appropriate and possible by laboratory study, including histopathologic analysis. Some uncertainty of the diagnosis is unavoidable in such an evaluation. On the other hand, exclusion of probable diagnoses and analyses of only confirmed diagnoses does not allow assessment of the distribution of renal disease as the bias is greater when diagnostic certainty is required.

Based on the population distribution in Central Missouri, this preliminary survey shows a normal distribution of major causes of renal diseases. The authors suggest, however, that continued monitoring of nephrologic diagnoses may lead to recognition of specific diseases endemic to this area. **The authors are from the Division of Nephrology, Department of Medicine, University of Missouri School of Medicine where Doctor Maher is a Professor of Medicine and Doctors Nolph, Bryan and Grim are Assistant Professors of Medicine.** **This work was supported in part by Missouri Regional Medical Program and by Clinical Research Center Grant RR 00287.**

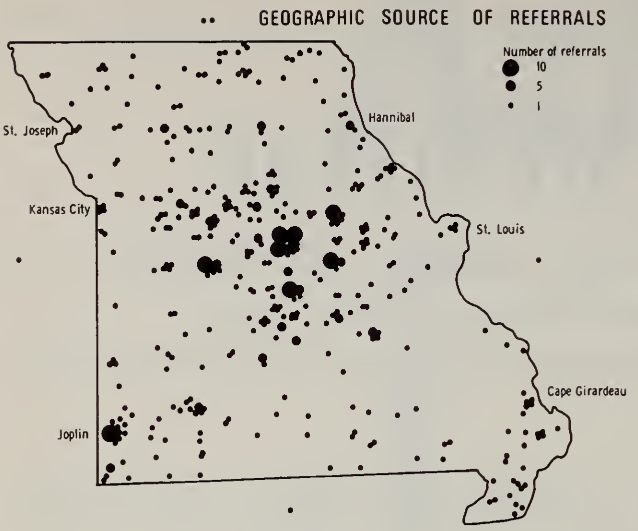

Fig. 1

In the first two years of operation, the Nephrology Division at Missouri University evaluated 509 patients. The geographic sources of these patients is shown in Fig. 1. Aside from the relative paucity of patients from St. Louis, Kansas City and Springfield, the distribution of patients reflects the population distribution in Central Missouri. When considered according to individual diagnoses, no geographic area was found to be a source of an inordinate number of congenital anomalies, such as polycystic kidneys; metabolic diseases, such as nephrolithiasis; or other specific causes of nephrotic syndrome, renal failure or hypertension.

Consultation usually was sought to evaluate proteinuria, hypertension, edema, hematuria, renal failure, nephrotic syndrome or electrolyte abnormalities. Occasionally, oliguria or polyuria were presenting manifestations. Often referral was for management of a specific disease.

The dominant renal lesion was acute or chronic pyelonephritis in 6.9% of patients (Table 1). The diagnosis was based on the history of recurrent symptoms of bladder irritation, polyuria, positive urine culture and either white cell casts, flank pain or calyceal distortion on the pyelogram indicating renal involvement. Chronic pyelonephritis (4.5%) was diagnosed when chronic renal insufficiency accompanied evidences of urinary infection. This is a low incidence in comparison to the reported 6% frequency of bacilluria. The incidence is believed to be low because urinary tract infection is often managed by the referring physician who seeks consultation only when the disease is refractory to antibiotics or when renal failure occurs. This is because patients with pyelonephritis are often referred for infectious disease or urology consultation rather than to nephrologists and because pyelonephritis often played a significant role in causing renal damage when other lesions such as diabetes, hypertension or obstructive uropathy were considered to be the primary disease. This analysis does not approach the question of whether peylonephritis is a frequent cause of hypertension or merely a frequent complication of hypertensive vascular disease. Examples of both have been encountered.

TABLE 1

CAUSES OF RENAL DISEASE

	%
Pyelonephritis	6.9
Glomerulonephritides	19.2
Nephroangiosclerosis	16.7
Metabolic Nephropathy	10.0
Obstructive Uropathy	4.7
Acute Renal Failure	10.2
Congenital Nephropathy	5.1
Miscellaneous Nephropathy	11.7
Prerenal Azotemia	5.5
Fluid and Electrolyte Abnormalities	7.5
Exogenous Poisoning	2.0

Glomerulonephritis was believed to be the cause of renal disease in 19.2% of patients. Acute or chronic glomerulonephritis, as traditionally interpreted, accounted for only 5.9% of these patients, however. Acute post streptococcal glomerulonephritis represented 1.6% of consultations and all but one of these patients were children. Several adults referred with this admitting diagnosis were later found to have other lesions. The diagnosis of acute poststreptococcal glomerulonephritis was based on evidence of antecedent streptococcal infection, glomerular inflammation, which usually was documented by red blood cell casts, and diffuse glomerular involvement with hypertension, edema and often azotemia. When performed, renal biopsies showed endothelial cell proliferation, discrete staining for immunoglobulins and complement in glomeruli and recognition on electron microscopy of extramembranous deposits, the epithelial cell humps. There was one case of "shunt" nephritis. This form of acute glomerulonephritis is a complication of surgical decompression shunts for hydrocephalus. Chronic glomerulonephritis was diagnosed in 4.3% of the patients. This diagnosis was made mainly in adults, often with symmetrically small kidneys and renal failure accompanying abnormalities of the urine sediment suggesting glomerulonephritis. Occasionally, there was a history of proteinuria, hematuria or recurrent edema preceding hospitalization, but none had a history of classical acute glomerulonephritis. The diagnosis was suspected in about 4% of the other patients, but confirmatory evidence was lacking and they are included under the category of chronic renal disease of unknown cause.

Focal nephritides were seen more often than acute diffuse glomerulonephritis. This may reflect better diagnostic methods for these diseases or may indicate that our previous appreciation of this lesion has been insufficient. Heptinstall[2] questions whether focal nephritis may be a more frequent precursor of chronic glomerulonephritis than acute poststreptococcal glomerulonephritis. Of the 6.5% of patients with focal nephritis, most cases were due to systemic lupus erythematosus (4.1%). Other less frequent causes were Schönlein-Henoch syndrome, hemolytic uremic syndrome, SBE nephritis, dermatomyositis, hereditary nephritis and "benign" focal nephritis. One patient with hemolytic uremic syndrome recovered without apparent sequelae while another child became anuric due to cortical necrosis and died several months after transplantation.

Three patients with rapidly progressive glomerulonephritis presented with features that initially suggested acute glomerulonephritis. The lesion was less explosive at its onset but more persistent, and led to loss of function over the course of months. Two patients have required hemodialysis and one has undergone successful transplantation. Two patients have had a hypocomplementemic form of membranoproliferative glomerulonephritis manifesting the nephrotic syndrome and showing a gradual loss of renal function. On biopsy, such patients show a lobular form of membranoproliferative glomerulonephritis.

Six per cent of the patients were diagnosed as having nephrotic syndrome due to varied forms of glomerulonephritis. In this group, membranous glomerulonephritis was the most frequent diagnosis (2.0%); the others manifested proliferative glomerulonephritis, minimal change disease, mixed forms or were unclassified in the absence of renal biopsy. There was one instance of renal vein thrombosis. The low incidence of minimal change disease (lipoid nephrosis) may reflect the fact that these patients often respond to initial therapy or remit spontaneously, so consultation is sought less frequently than in other more persistent forms of glomerular disease. Other causes of nephrotic syndrome, such as diabetes and amyloidosis, are discussed elsewhere.

The third major category of renal disease is renal vascular disease or nephroangiosclerosis. Hypertension usually was the dominant manifestation of patients diagnosed as having nephroangiosclerosis. Indeed, all patients with sustained hypertension were assumed to have some degree of arteriolar nephrosclerosis. Hypertensive renal arteriolar disease accounted for 16.7% of the patients. The incidence of hypertension was recorded as 10% during the first year, but it increased because of the special interest of one of us. Nine percent of the patients were diagnosed as having essential hypertension. A category of patients presenting as essential hypertension were found to have a low peripheral plasma renin activity. This group represented 4.9% of our referrals. Four of them were found to have primary aldosteronism. The others are still under study. Some of these also may represent hypertension due to autonomous adrenal function. Four patients (0.8%) had renal artery stenosis causing hypertension, one had coarctation of the aorta and one had pheochromocytoma. Two percent of referrals were for malignant hypertension. The incidence of malignant hypertension, thus is high for a population of hypertensive patients reflecting an increased frequency of consultation when hypertension is severe.

Hypertension was a frequent manifestation of other forms of renal disease. The incidence of hypertension approached 100% in chronic glomerulonephritis, diabetic nephropathy and polycystic kidneys. Hypertension was a transient manifestation of some reversible forms of renal disease, such as acute glomerulonephritis and acute renal failure. In our experience, however, the major curable forms of hypertension have been primary aldosteronism and renal artery stenosis.[3]

Ten percent of the referrals were because of metabolic disease involving the kidney. Diabetic nephropathy was the most frequent metabolic cause of renal disease (5.3%). These patients usually were seen when there was obvious renal failure most often superimposed on the clinical picture of nephrotic syndrome. Nephrolithiasis was diagnosed in 3.4% of patients of whom more than half did not have a specific cause identified. However, two patients were diagnosed as having primary hyperparathyroidism, one as having vitamin D intoxication (reported in detail elsewhere),[4] two as having uric acid nephropathy and two as having hypercalcemia secondary to metastatic carcinoma. The incidence of nephrolithiasis is relatively low because many such patients are treated by urologists without medical consultation. The unusual forms of nephrocalcinosis and nephrolithiasis reflect the suspicion or documentation of specific medical diseases prior to referral. The syndrome of inappropriate antidiuretic hormone secretion[5] was diagnosed in 1.2% of patients, reflecting the special interest of one of us. The diagnosis was only tentative in most instances because the referring physicians were satisfied to have other important causes of hyponatremia excluded and deferred the extensive evaluation needed to document the syndrome precisely.

Obstructive uropathy accounted for 4.7% of referrals. The causes of obstruction included congenital bladder neck obstruction, prostatism, malignant tumors and benign ureteropelvic obstruction. Two patients presented with the syndrome of postobstructive diuresis. In both instances, this led to salt depletion and dehydration with aggravation of renal failure until repletion was accomplished. Again, the incidence of obstructive uropathy appears to be underestimated because such patients are often referred directly to the urologist.

The sixth major category of renal disease encountered was acute renal failure, representing 10.2% of consultations. Of these, two thirds followed ischemic insults to the nephrons, due most often to postsurgical shock, hypovolemic shock, septic shock and the crush syndrome. Acute nephrotoxicity was recognized in four patients treated with amphotericin, two with colistin, two with kanamycin, two with gentamycin, one with sulfonamide therapy and three following methoxyflurane anesthesia. Several followed mixtures of potentially nephrotoxic drugs. One patient who had been exposed to a large dose of neomycin, was treated with peritoneal dialysis and did not develop demonstrable nephrotoxicity.

Excluding congenital obstructive uropthy and hereditary nephritis, congenital renal disease accounted for 5.1% of our consultations. This was because of the relatively high incidence of polycystic kidneys (4.1%). The remainder was due to hypoplasia (.8%) and medullary sponge kidney (.2%).

Five patients had a diffuse interstitial nephritis (1%). One was attributed to radiation, three were attributed to analgesic abuse and one was of unknown cause.

Four patients were seen because of malignant tumors involving the urinary tract (.8%), two because of renal involvement in leukemia, one with renal cell carcinoma and one with bladder cell carcinoma. The incidence of the latter two is low because of primary referral to urologists. There were an additional six patients (1.2%) seen because of myeloma kidney.[6] This relatively high incidence reflects the particular interest of one of us and the active oncology service at this institution.

There were two patients who presented with amyloidosis of the kidney and renal failure. Both have been treated with maintenance hemodialysis. Two patients presented with diffuse bilateral cortical necrosis. One is the subject of a separate report.[7] The other developed the lesion following hemolytic uremic syndrome, underwent maintenance hemodialysis followed by transplantation at another hospital and then experienced rejection of the kidney. One other patient was successfully managed through an episode of transplant rejection.

Renal tubular disease accounted for 1.4% of referrals. This category included patients with renal tubular acidosis, renal glycosuria and the Fanconi Syndrome. Numerous patients with an inability to concentrate the urine were seen. This was due to specific causes such as potassium depletion, hypercalcemia, obstructive uropathy, diabetes insipidus or, most frequently, osmotic diuresis. No instances of nephrogenic diabetes insipidus or isolated renal sodium losing were encountered.

In addition to the patients described above, there were three patients with hematuria; one was due to hemorrhagic cystitis, one was associated with a coagulopathy and one was idiopathic.

Chronic renal disease of unknown cause accounted for 5.9% of referrals. Many of these patients had small fibrotic end stage kidneys. The differential diagnosis at this point may be impossible, even with a renal biopsy.[8] These patients lacked the definitive data on examination or from laboratory studies for us to identfy with confidence a specific form of renal disease.

The remaining patients were seen for diagnosis and management of extrarenal problems. Prerenal azotemia accounted for 5.5% of patients. This was due to such causes as dehydration, salt depletion, heart failure and hepatorenal syndrome. These patients had a reversal of their azotemia when the hemodynamic disorder could be reversed. Many of those with renal disease also had transient decreases in function due to such hemodynamic problems. Electrolyte abnormalities accounted for 7.5% of referrals. At least twice this number of patients had electrolyte abnormalities complicating the renal diseases discussed above. The most frequently encountered problem was hyponatremia of varied causes; other consultations were for hypernatremia, hyperkalemia, hypokalemia, lactic acidosis, other forms of metabolic acidosis, metabolic alkalosis and mixed disturbances. Edema unrelated to primary renal disease accounted for 11 referrals, due to such causes as refractory heart failure in three patients, ascites complicating liver disease in two, protein losing enteropathy in three, idiopathic orthostatic edema in two and angioneurotic edema in one patient.

Two per cent of the patients were seen because of acute drug intoxication and evaluation for therapeutic dialysis or for diuresis.[9] This is a very low incidence compared to that of other nephrology centers, particularly in view of the widely-recognized interest of one of us. Only one patient underwent dialysis for acute sedative intoxication. There were four patients treated for acute barbiturate poisoning, two for acute glutethimide poisoning, two for acute salicylate poisoning and two other mixed intoxications. Our interpretation of the low incidence is that this problem is less frequent in this rural population.

Based on this experience with more than 500 patients, the distribution of the major causes of renal disease[10] does not appear to be skewed. Very often, referral diagnoses incompletely classified the disease, and detailed evaluation often identified treatable or curable lesions and indicated a fascinating collection of diseases. Continued monitoring of nephrologic diagnoses may lead to recognition to specific diseases endemic to this area, but this preliminary survey shows a normal distribution.

Case Reports

Case #1. Hereditary Nephritis. This high school student was first evaluated at the University of Missouri Medical Center because of renal failure.

When she was ten years of age, one of us, on consultation, reviewed her renal biopsy and made the diagnosis of Alport's syndrome (hereditary nephritis). She was hospitalized at a military hospital at that time because of proteinuria and hematuria. Her younger sister also had nephritis. She remained active as renal function slowly deteriorated during the ensuing years. At age 17, conservative therapy no longer prevented symptomatic uremia. Lethargy, vomiting and pericarditis developed and blood urea nitrogen and serum creatinine reached values of 250 mg/100 ml and 30.8 mg/100 ml, respectively. Regular hemodialysis was begun and she improved clinically. Blood urea nitrogen (BUN) was maintained below 100 mg/100 ml and creatinine below 15 mg/100 ml by twice weekly dialysis. Repeated technical difficulties with vascular access, however, prevented full rehabilitation. After one year of dialysis, she was referred to a military hospital for renal transplantation. After initial success, severe late rejection occurred and was reversed only with difficulty and complications of therapy resulted as outlined in Fig. 2.

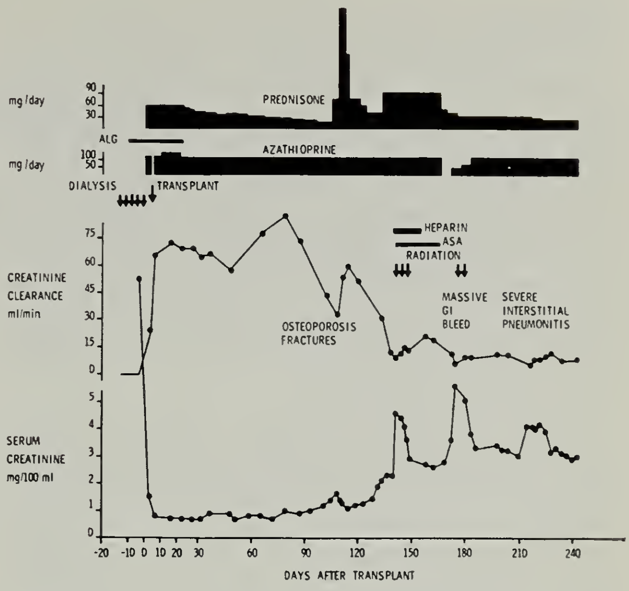

Fig. 2 Clinical course of renal transplantation. Note numerous complications of therapy. Nevertheless, the graft has continued to sustain life for over a year.

Comment

This patient exemplified many of the complications of maintenance dialysis and transplantation. While both procedures led to periods of well-being and considerable improvement over the results of conservative therapy, full rehabilitation was not maintained for more than a few months.

Case #2. Nephrotic Syndrome. This 18-year-old man developed severe generalized edema five months before referral to the University of Missouri Medical Center. He had a sore throat one month before the onset and recent exposure to insecticides, fertilizers and paints. His blood pressure was normal, there were no abnormalities of the heart or liver and there was massive edema of the extremities and low trunk (estimated 25 lbs). Laboratory studies revealed proteinuria (9.2 Gm/24 hr), hypoalbuminemia, hypogammaglobulinemia and normal renal function (creatinine clearance, 146 ml/min). Renal biopsy revealed proliferative glomerulonephritis without vascular disease, interstitial fibrosis, tubular atrophy or glomerular fibrosis. He has been treated with diuretic therapy alone. After four months, proteinuria and hypoproteinemia continue and renal function is stable. There is moderate edema.

Comments

This patient has nephrotic syndrome due to proliferative glomerulonephritis. Although therapy may relieve symptoms, there is no convincing evidence that adrenal steriods or immunosuppressive therapy affect the long-term prognosis of patients with nephrotic syndrome. Therefore, we are randomly assigning patients to three treatment protocols—diuretics alone, prednisone or cyclophosphamide—in an attempt to determine which provides the greatest long term benefit and causes the least harm.

Case #3. Amyloid Kidney. This 51-year-old, white housewife developed progressive swelling of the ankles and face beginning in 1965. A diagnosis of nephrotic syndrome was made, and there was no response to a trial of cortisone. In June, 1969 a renal biopsy showed amyloid infiltrate of glomeruli and blood vessels. Physical examination revealed pallor, but results were otherwise normal. Blood pressure was 138/80 mm Hg; BUN was 159 mg/100 ml; serum creatinine, 18.6 mg/100 ml; serum albumin, 1.5 Gm/100 ml; urine protein, 5.8 Gm/24 hr; and creatinine clearance, 2.8 ml/min. Her dietary protein was modified, her fluid and electrolyte balance were controlled and she was treated with ferrous sulfate, vitamin D_2, Sodium bicarbonate and aluminum hydroxide gel (Amphojel). BUN decreased to 69 mg/100 ml and creatinine decreased to 10.2 mg/100 ml. She was discharged. On this program, she continued to be active but gradually lost renal function. Nine months later, she was hospitalized for hemodialysis. At this time, BUN was 150 mg/100 ml; serum creatinine, 19.8 mg/100 ml; serum phosphate, 20.6 mg/100 ml; and serum albumin, 1.7 Gm/100 ml. The creatinine clearance was 2.9 ml/min. After one year of maintenance hemodialysis therapy, she continues to be fully active. The BUN before dialysis is in the range of 100-120 mg/100 ml and decreases to about 35 mg/100 ml with each procedure. There are no extrarenal manifestations of amyloidosis.

Comments

This patient demonstrates that patients may be maintained in good health by regular hemodialysis, even when the underlying disease is one that usually has widespread manifestations.

Case #4. Analgesic Nephropathy. A 57-year-old physician presented with right renal colic, hematuria and azotemia (BUN, 37 mg/100 ml). An intravenous pyelogram showed right pyelocaliectasis with poor function. No calculus was identified. Additional history revealed ingestion of mixed analgesics (160 mg phenacetin) for headaches, approximately 12 to 15 per week for many years. The total ingested was estimated at about 2 kg BUN increased to 70 mg/100 ml. His colic waned and he was discharged. One month later, creatinine clearance was 19.6 ml/min. Five months later, a renal papilla was identified in his urine. Eight months after discontinuing analgesics, creatinine clearance was 25.8 ml/min.

Comments

This patient's history indicates how easily the diagnosis of analgesic nephropathy can be overlooked and misinterpreted under such diagnostic headings as pyelonephritis or nephrolithiasis. It further demonstrates that function can improve when analgesic ingestion is discontinued.

Case #5. Rapidly Progressive Glomerulonephritis. A 40-year-old white man was well until eight months before hospitalization when gross hematuria, cylindruria, proteinuria and generalized weakness occurred. A diagnosis of glomerulonephritis was made. He was treated with bed rest, but the disease progressed and he developed anemia and an elevated BUN and was referred for further treatment. Physicial examination revealed normal blood pressure, absence of edema and no tenderness over the kidneys. Urinalysis showed hematuria, granular casts, lipiduria, proteinuria and a fixed specific gravity. The hematocrit reading was 22%, the serum urea nitrogen was 200 mg/100 ml and creatinine clearance was 1.4 ml/min. Antistreptolysin titer was normal. Retrograde pyelograms were normal and renal biopsy showed marked proliferation of glomerular epithelial cells with many crescents. Despite conservative therapy, weakness increased. Three months later, he was placed on maintenance hemodialysis. After nine months, he is partially rehabilitated with an average predialysis BUN of 60 mg/100 ml and hematocrit reading of 30%.

Comments

At the onset of disease, this patient's diagnosis was misinterpreted as acute glomerulonephritis. Later, it was considered to be chronic. Careful review of the clinical data and renal biopsy led to the correct diagnosis. When this patient was referred, the kidney damage was too advanced to consider combined immunosuppressive and anticoagulant therapy which may prevent progression of this disease. Although well maintained on hemodialysis, he is a potential candidate for transplantation.

(Continued on page 812)

JACOB KULOWSKI, M.D., *St. Joseph*

Spontaneous Anterior Dislocation of the Atlas

Case Reports

THE FIRST REPORT of dislocation of the atlas without fracture is attributed to Bell in 1830.[1, 2] Since then, spontaneous anterior dislocation of the atlas has become a recognized complication of many inflammatory processes in the cervico-occipital area including upper respiratory infections, otitis media, scrofula, rheumatic fever and rheumatoid arthritis.[3] Seen in all age groups, it occurs most frequently in children because such inflammatory diseases are seen most frequently in this area in children. It is my purpose to report two cases of this remediable lesion in an adult and a child, respectively, and to comment on diagnosis and treatment generally.

Since this lesion is comparatively rare, the reporting of cases on record does not easily reflect one's way of thinking and acting clinically upon first encounter. Neither is it easy to record the searching for a diagnosis one may suspect but cannot grasp with certainty until a roentgenographic breakthrough to clarity and understanding. These clinical feelings are known only to the physician who has experienced them for the first time.

A brief discussion of the atlanto-axial joint is helpful in visualizing the mechanism of spontaneous dislocation.[4] The odontoid is surrounded by a ring composed of the anterior arch of the atlas anteriorly and the transverse ligament buffered by cartilage posteriorly. Normally, the transverse ligament exerts no checking effect on the cranio-vertebral movements. With loss of function of the transverse ligament, however, the atlanto-occipital unit can move in a horizontal direction. What causes this lesion at the transverse ligament is not clearly understood. In children, such cases are marked by a sudden painful rigidity of the neck, without any evidence of trauma but regularly associated with an inflammatory condition in the naso-pharynx.[5] Spontaneous anterior displacement of the atlas (rather than the odontoid process) and torsion may be caused by a swelling in the fossa between the dens and the anterior arch of the atlas: the children suddenly exhibit torticollis and hold the head in both hands. The same thing may occur as a result of destructive processes such as tuberculosis and tumors. (Agenesis of the dens is an uncommon lesion.)

The normal distance between the posterior edge of the anterior arch of the atlas and the anterior surface of the odontoid process, as measured in roentgenograms, is at the most 2.5 mm in normal adults.[6] A slight anterior shift of the atlas is not possible in healthy adults (according to Jackson[7]) despite the wide range of motion of the upper portion of the cervical spine, and it is worthy of some emphasis. The atlanto-occipital joint permits only flexion and extension, but the more complex atlanto-axial joint allows flexion and extension, rotation, vertical approximation and lateral gliding. Flexion and extension of approximately 15 degrees occur in either of these joints. The anterior arch of the atlas retains a close relationship with the odontoid process as it glides cephalad and caudad.

Widening of more than 2 mm to 3 mm of the space between the anterior arch of the atlas and the odontoid process is suggestive of transverse

Although spontaneous anterior dislocation of the atlas is a clear-cut clinical and x-ray entity, it may be difficult and frustrating for the physician to determine or "pin down," as these case reports demonstrate. Treatment may vary to meet the needs of the individual patients. Doctor Kulowski is in the private practice of orthopaedic surgery.

ligament laxity or injury. Rotation occurs with the odontoid process as the pivotal point: 45 degrees of rotation is possible to either side. Vertical approximation is apparent. Lateral gliding is a complex movement associated with lateral tilting of the head.

The cervical spine, therefore, is unique in that it allows extensive motion, yet its vertebrae are locked together to form an amazingly stable column. The first and second vertebrae are modified, as is well-known, forming the pivot joint required for head rotation. Fortunately, the posterior arch of the atlas is much larger than the other arches and allows for cord movement in this area. Moreover, the muscles can be conveniently divided into head movers and neck movers. Together, they constitute by far the most important support for the head.

Diagnosis

Spontaneous pain in the neck, stiffness and torticollis are common presenting symptoms. However, the diagnosis can usually be made on the basis of careful routine x-ray studies provided that the patient's symptoms allow proper positioning of the head for all essential views. However, x-rays may mimic traumatic, pathologic and congenital lesions initially, and it may be necessary to repeat these studies several times before the true nature of the lesion becomes apparent.

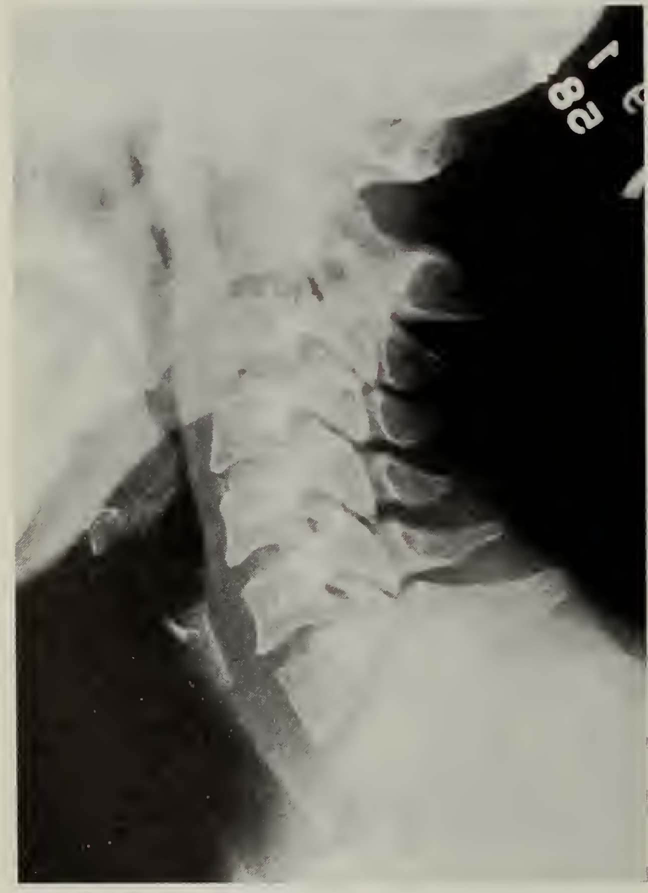

Fig. 1 X-ray diagnostic clincher (Case # 1).

This was the case in both of the patients being reported here. Special laminographic studies are often necessary to detect this entity. Moreover, laminographic and myelographic studies of the cervical spine may be indicated in cases with neurological signs and symptoms due to signs of compression of the cord below the level of the dislocation.[6, 7] Any combination of cord symptoms is possible, such as quadriparesis, Brown-Sequard's Syndrome or syringomyelia. If dislocation is pronounced, the anterior arch now may be felt as a forward bulge in the posterior pharynx. This condition also may cause some difficulty in swallowing.

Case Reports

Case #1. A 36-year-old white woman was first seen at St. Joseph Hospital in September, 1964 giving a history of spontaneous onset of occipital headache in May, 1964, which had been preceded by stiffness of the neck. Her headache was associated with pain at the nape of her neck radiating over the top of the head. These symptoms grew so severe that by June, 1964, when she would lie down, she was unable to raise her head off the pillow. She also had some difficulty in swallowing. Her pain was exceedingly severe. In August, x-rays were taken and she was treated with tranquilizers, cervical traction and a collar for several days. She received some relief. Soon, the headaches had become more severe and burning.

Her health previously had been good except for nervousness and an inability to eat because of the difficulty in swallowing. As a result, she had lost 20 lb. She had no history to suggest malignant disease elsewhere. She had an appendectomy in 1945. She admitted to having had the influenza accompanied by chills and fever in January, 1964, but she recovered. Now, she could hardly move her head without the collar and she looked very sick. Her appearance was suggestive of malignancy elsewhere with cervical metastasis or tuberculosis.

Examination revealed marked stiffness of the neck with considerable muscle spasm. The chief limitations of motion were in extension and rotation to the right. The relevant neurological examination was normal.

Routine x-rays on Sept. 1, 1964 (Fig. 1) and special laminographic studies disclosed anterior displacement of C1 on C2, normal relationships between the occipital condyles and the first cervical vertebra associated with right lateral luxation of C1 on C2 with moderate osteoarthritic changes between the occipito-vertebral articulations. The lower cervical segments were normal. Double scoliosis of the dorsal spine was associated with generalized apophyseal osteoarthritis and some accentuation of the dorsal kyphotic curvature. There was no evidence of recent or old fracture, bone destruction, metastasis or major narrowing of the intervertebral spaces. The rib outlines were normal. X-rays of the chest showed healed histoplasmosis.

With worsening of her symptoms, further x-ray studies of the cervical spine were subsequently made at intervals.

On Oct. 19, 1964, laminograms confirmed the presence of anterior subluxation of C1 and C2 (approximately 6 mm) without fracture or significant retropharyngeal soft tissue swelling or other abnormality and no motion in the sagittal plane at the atlanto-occipital articulation.

By November, 1964, the patient developed pain radiating into the left arm and some weakness in the right hand. The neurological examination revealed a "thin, very sick woman wearing her collar. The neck was rigid with exquisite tenderness at the nape of the neck. Positive neurological findings included almost total anaesthesia of C2 and C3 on the left, including the back of the head, as well as organic weakness of the right deltoid and biceps muscles and reduction of the right biceps reflex. There was questionable sensory loss in the right arm. There were no signs of spinal cord compression other than diffuse hyperflexia."

On Nov. 10, 1964, myelographic studies showed a normal cervical spine below the C2-C3 level, but there the pantopaque column was blocked. Surgical exploration was deferred on Nov. 14, 1964 because of inability to intubate the patient until November 25 when anaesthesia could be administered through a tracheostomy (later replaced by a regular tracheostomy tube).

Operation: A posterior subperiosteal exposure of the occipito-cervical segment was made. The lamina of C1 was locked in a forward position with some rotation to the right. It could not be dislodged, but I did not elect to laminectomize this vertebra (according to Garber, removal of the arch of the atlas has little, if any, pressure-relieving effect and takes away a valuable bridge of bone which can be used if fusion is required).[9] The exposed area of the occiput and spine was freshened for bone grafting as for a Hibb's procedure and then overlayed with bone chips obtained from the left posterior ilium. The operation was concluded without episode. The wound was closed in layers without drainage and a Minerva plaster was applied.

She made an uneventful recovery. Several months later, the cast was replaced with a brace. The patient's symptoms cleared up rapidly and she regained her health. Follow-up x-rays showed a persistent anterior displacement of the atlas with stabilization by bone grafting. The final x-ray study (May, 1968) showed a well healed bone graft stabilizing the occiput to the upper three cervical vertebral bodies in a so-called "military" attitude in mild forward subluxation of C1 on C2 (Fig. 2).

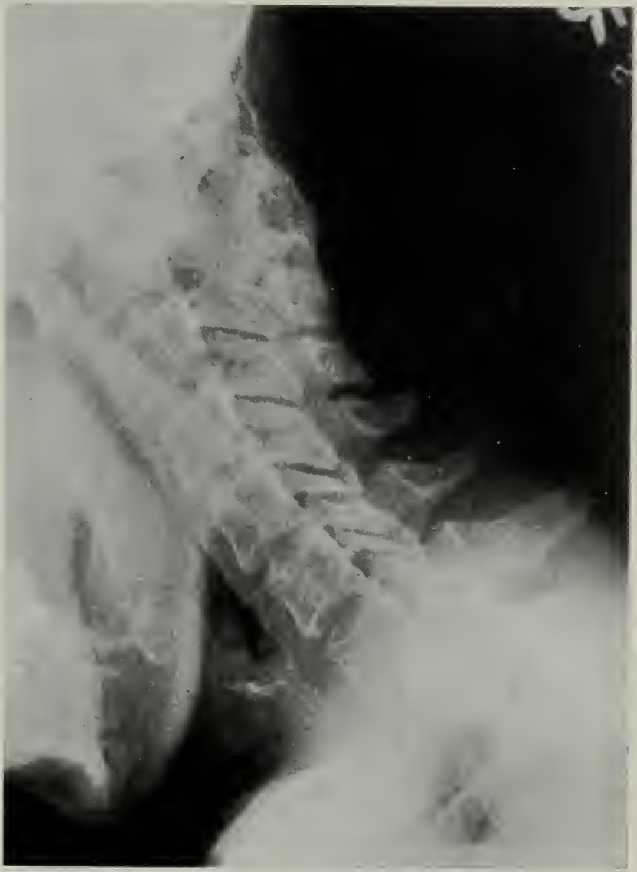

Fig. 2 **Solid bone graft fusion, postoperative.**

Case # 2. A 4-year-old white boy was admitted to the St. Joseph Hospital on July 12, 1969 for treatment of a neck injury after a fall in his yard on July 11, 1969. The accident was said to have produced his painful torticollis, but it could not be verified in questioning his parents. They did state that the child had suffered several bouts of acute tonsillitis in recent weeks. Examination revealed a child lying quietly in bed without responding to the usual stimuli to make him move his extremities. His neck was rigid and turned to the left. However, the neurological examination was negative, except for the slightly exaggerated deep tendon reflexes of the upper extremities as compared with the lower. Routine x-rays of the cervical spine suggested an absence of the tip of the odontoid process, some spreading of the lateral processes of the atlas and a possible vertical fracture of the anterior margin of the arch of the atlas. However, spontaneous anterior dislocation of the atlas was suspected clinically.

Head halter cervical traction was applied and further x-ray studies, including laminography, were done. An anterior dislocation of the atlas was noted in addition to the previous findings (Fig. 3). Traction was continued. On the following day, the patient suddenly exhibited two episodes of "unconsciousness." However, the neurological examination was unchanged. Traction was continued. That evening, the same thing happened. The youngster was taken to the orthopaedic room. His neck was guard-

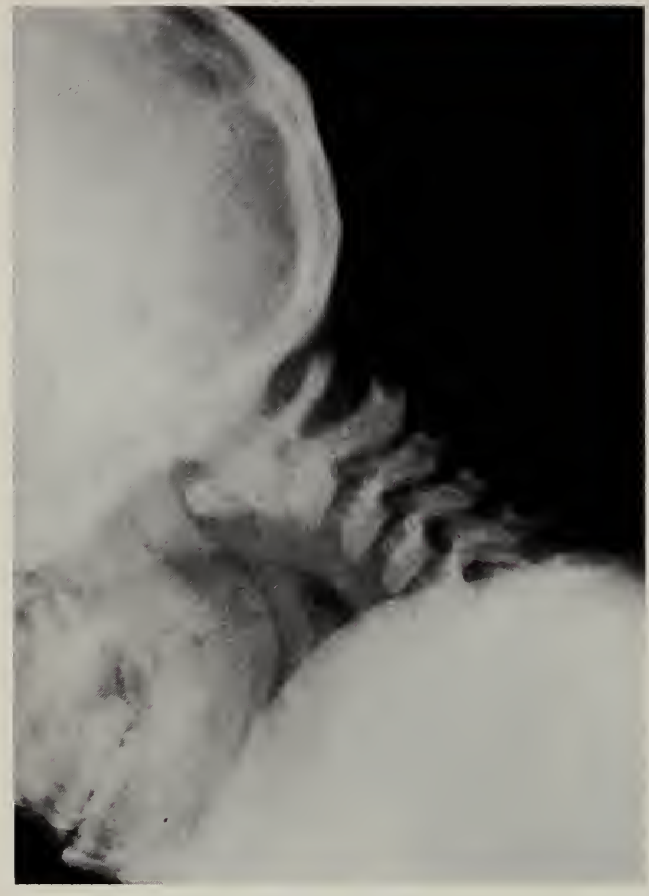
Fig. 3 Anterior dislocation of the atlas (Case # 2).

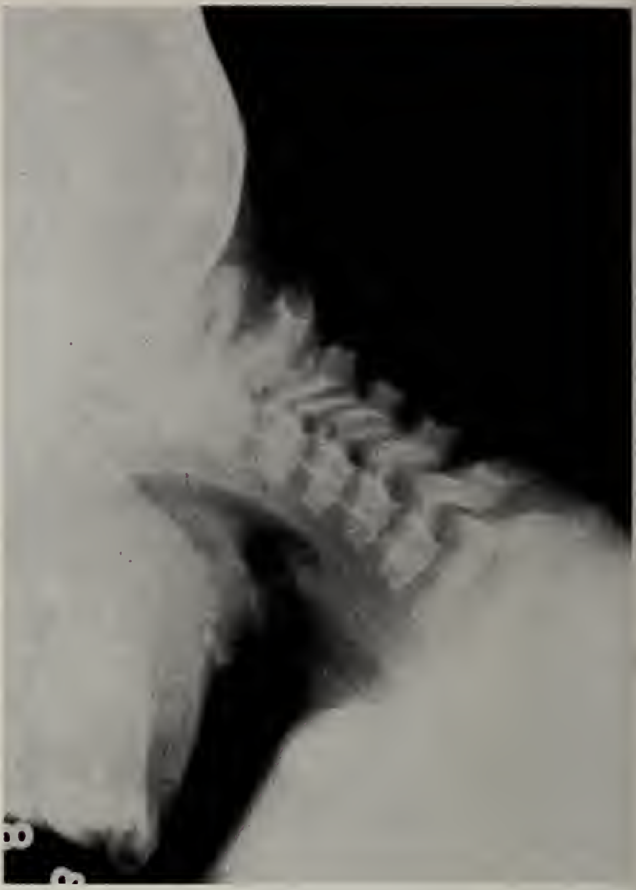
Fig. 4 X-ray follow-up (Case # 2).

edly manipulated under general anaesthesia and a Minerva cast was applied. He promptly and vigorously recovered and progressed to full health. X-rays showed improvement of the dislocation. He was discharged from the hospital ambulant on July 28, 1969, tolerating his plaster well. Subsequent care and follow-up on an outpatient basis was satisfactory except that the plaster had been softened and was removed on Aug. 20, 1969 and a collar was applied. X-ray findings remained the same. His recovery remained uneventful. When seen on Sept. 25, 1969, he was asymptomatic, but x-rays still showed a mild instability at C1 and C2 vertebrae. On March 14, 1970, the patient and x-rays were normal (Fig. 4).

COMMENT

Treatment of spontaneous anterior dislocation of the atlas has been divided into broad categories of immobilization, fusion[10] and/or decompression. Immobilization may be obtained by simple traction, Crutchfield tongs, braces or plaster casts. Skeletal traction has the advantage of decompressing the cord. Decompression usually consists of laminectomy with or without suboccipital craniectomy. The ideal treatment would seem to be to reduce the dislocation with tongs and traction until realignment and clearing of the neurological symptoms (if any) is achieved. Thereafter, if instability persists (six to eight weeks), fusion without laminectomy would seem to be indicated. Following laminectomy, fusion is difficult. Without fusion, the potentially dangerous situation of an unstable C1 or C2 joint persists if left untreated. Deaths have occurred.

SUMMARY

Two examples of spontaneous anterior dislocation of the atlas are described with comments on anatomy, physiology and mechanism of dislocation. Treatment has been outlined in several sequential categories. More awareness of this entity will result in more frequent diagnosis and proper treatment. Adequate roentgenological evaluations may be difficult but treatment must be based on these findings.

Acknowledgement: The author wishes to express appreciation to R. Phillip Acuff, M.D., radiologist, for his assistance in the treatment of these patients.

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(Continued on page 812)

DAVID MYERS, JR., M.D. *and*
ROBERT L. NEWMAN, M.D., *Kansas City*

Use of Friedman Curve in Obstetrics

A retrospective study was undertaken with the purpose of plotting Friedman labor curves on 130 patients who were monitored from the inception of fetal monitoring. The authors conclude that this is a simple, inexpensive and easily interpreted monitor of labor progression. Doctor Myers is a Resident in Obstetrics and Doctor Newman is from the Department of Obstetrics and Gynecology at St. Luke's Hospital. This study was supported by St. Luke's Hospital Foundation for Medical Education and Research.

PERHAPS NOWHERE in the field of medicine is the standoff between art and science as stubborn as in the evaluation of the most ancient and basic clinical problem, the labor of childbirth. The practitioner's skill is tested to its limit by the difficult or abnormal labor pattern. He is called upon to interpret and treat the normal labor, as well as the abnormal, by assessing uterine contractility and cervical dilatation.[1–4]

Recently, basic digital assessment of these factors has been augmented by the introduction of direct cardiotachometry and cannulation technique for monitoring amniotic fluid pressure. With the data obtained, it still must be interpreted within the dynamics of the labor process and, to a great extent, must still be dependent on the intuition of the physician.

Numerous methods of objective study of labor have been devised and put to brief or prolonged use. Calkins *et al*[1–4] used evaluation of the cervix as well as quality of the uterine contractions in an attempt to predict the duration of labor. It was concluded that parity alone modified the duration of labor. All factors such as age, stature of patient, presentation, size of baby and size of pelvis have no bearing on the duration of the first stage of labor. Of the three characteristics of uterine contractions, frequency, duration and intensity, Calkins found that frequency and intensity were the most important.

Friedman[4] states, however, that these three characteristics of uterine contractions are of small prognostic or diagnostic value. He cites the example of the patient with negligible contractions quietly dilating her cervix and, perhaps, precipitously delivering the baby under the sheets even during a debate as to whether or not she is in labor. On the other hand, there is the woman with contractions of booming intensity and great frequency that may continue 24 hours or more before cervical dilatation becomes apparent. One is an efficient labor machine and the other is inefficient, yet both are normal variants. The doctor with enough experience, insight or, best of all, a truly objective method of assessment of labor will recognize that management differs only with respect to investment of patience and emotion.

A method of comparing the characteristics shared by all normal labors has been available for approximately 20 years.[5] It rests on the simple relationship of elapsed time to estimate cervical dilatation.

When plotted graphically, the typical sigmoid curve is independent of the more variable and less reliable or meaningful aspects of labor, i.e., contractility patterns or soft-part resistance. The shape of the curve is the chief evaluative factor and, therefore, the small inaccuracies of individual digital examinations are unimportant. Any significant deviation from the simple resulting graph is clearly visualized.

The Friedman curve, as illustrated in Graph I (Fig. 1), has two major divisions, the latent and the active phases. The length of the latent phase varies widely in patients, and the contractile pattern is independent of normality or abnormality of this phase, i.e., irregular, poor contractions occur with normal latent phases and regular progressive contractions can occur with an abnormally prolonged latent phase.

The prolongation beyond 20 hours in the primipara and 14 hours in the multipara can be due to (1) false labor, (2) unripe cervix, (3) myometrial dysfunction, (4) excessive analge-

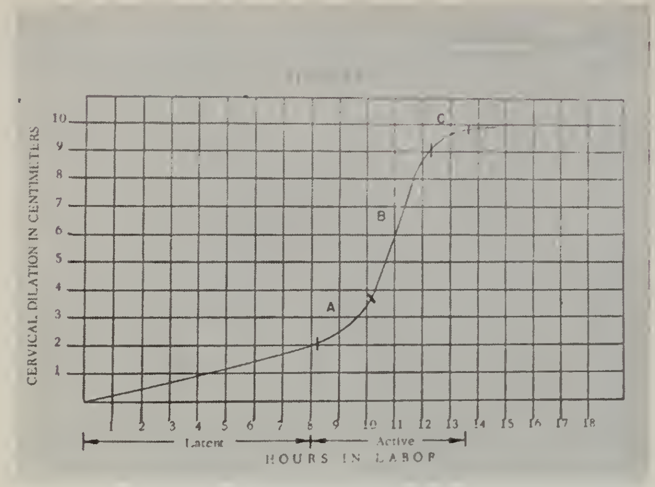

Fig. 1—Graph I

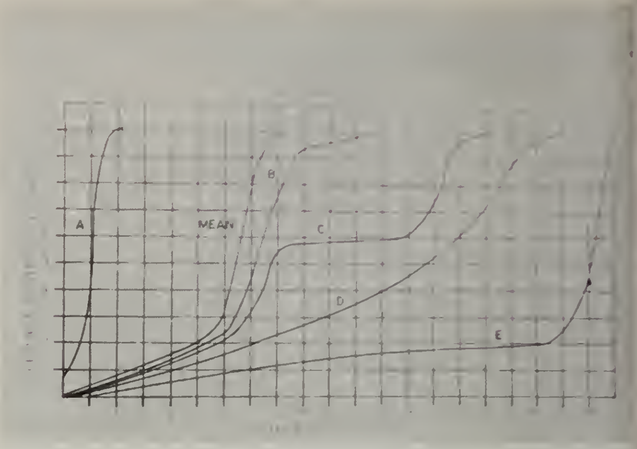

Fig. 2—Graph II

sics, (5) anesthesia or it can be (6) "idiopathic."

In the past, diagnoses such as cervical dystocia, primary uterine inertia and primary dysfunctional labor were made in the prolonged latent phase and led to as many as 30% of such patients being subjected to Cesarean section, according to Friedman. He states further that these diagnoses are premature and can only be made accurately once the active phase has begun. When a prolonged latent phase is encountered, Friedman recommends resting the patient. This results in the diagnosis of false labor or progression into the active phase, in which 90% of patients will progress normally to delivery without assistance.

Therefore, it is important to objectively identify the latent phase. The labor graph clearly visualizes the critical point at which the latent phase is terminated and the rate of change accelerates into the next phase, that being the active phase. This phase is divided into three parts: the acceleration phase, the maximum slope of acceleration and the deceleration phase. The protracted active phase is immediately apparent. Rarely can a protracted active phase be shortened even with oxytocin, but several things can prolong it. These include excessive sedation, conduction anesthesia and even amniotomy. Secondary arrest in varying lengths was observed by Friedman[6] in 40% of patients in one series, with amniotomy being done in the active phase. The effect of amniotomy on the course of labor also was studied in depth by Abt[7, 8] as well.

Methods & Materials

A retrospective study was undertaken with the purpose of plotting Friedman labor curves on all patients at St. Luke's Hospital monitored from the inception of fetal monitoring from January, 1970 until Jan. 1, 1971. An attempt was then made to correlate prolonged and abnormal labor patterns with fetal outcome and to decide if the curve was, in fact, of clinical value. There were 130 patients studied. Of these, 57 were multiparas and 73 primiparas. There were 93 spontaneous deliveries and 27 forceps deliveries which were broken down as follows: 22 outlet forceps; two mid, two low and one high forceps.

The high forceps was employed in a vertex presentation of the second of twins with a depressed fetal heart rate. This series also included two assisted breeches, two twin deliveries, seven Cesarean sections and two stillbirths.

Results

In analyzing the resultant graphs, all of the five classical aberrant labor patterns of Friedman[9] were found. Graph II, Line A (Fig. 2) represents precipitous labor pattern. The mean also is drawn on the graph for the normal multipara delivery. Line B is a prolonged deceleration. Line C represents the secondary arrest; Line D, the protracted active phase; and Line E, the prolonged latent phase.

Of the 130 patients, 62 were found to have abnormal labor patterns. The distribution, according to type of abnormality, parity and associated Apgar score at one minute, is shown in Table 1. There were 22 subnormal Apgars at one minute.

Group A is the prolonged latent phase; there were 34 patients, 19 multiparas, 15 primiparas. The subnormal Apgar scores were associated with one diabetic patient, one pre-eclamptic, two patients with partial premature separation of the placenta. In Group B or the protracted active phase there were ten patients. The one low Apgar score was in a 20-year-old patient

TABLE 1

APGAR SCORES

Type	*No. of Patients*	*9-10*	*7-8*	*5-6*	*3-4*	*1-2*
A. Prolonged	19 multips	11	4	2	2	
Latent	15 primips	11	2	2		
B. Protracted	4 multips	2	1	1		
Active	6 primips	5				1
C. Secondary arrest	9 primips	6		1	1	1
D. Prolonged deceleration	2 primips	2				
E. Precipitate	7 multips	3	3	1		
Totals	62	40	10	7	3	2

whose delivery of a 5 lb 6 oz female was assisted with outlet forceps. The Apgar at one minute was two and at five minutes was six. The infant did well postpartum. In Group C, there were nine primiparas with three abnormally low Apgar scores. The lowest Apgar was in a 19-year-old patient whose spontaneous delivery of an infant with an Apgar at one minute of two and at five minutes was six. The infant did well postpartum. The remaining two low scores were in patients who were sectioned; the first was a pre-eclamptic and the second was because of cephalo-pelvic disproportion. The latter's labor pattern is illustrated in Graph III (Fig. 3). This infant's Apgar was two at one minute and at five minutes was six. In summarizing the table, there were 22 Apgars at less than nine at one minute and the lowest of these were associated with abnormal active phases of the labor curve.

In analyzing the remaining 68 patients with normal labor patterns, low Apgars at one minute were noted in 26 of the patients. This distribution is illustrated in Table 2. There were 11 infants in the seven to eight group, eight in the five to six group, three in the three to four group, two in the one to two group and two stillborns. The two stillbirths were secondary to Rh isoimmunization in one case and of unknown cause in the second case of a 36-weeks gestation. An autopsy revealed a macerated fetus and pulmonary immaturity. The two Apgar scores in the one to two range were associated with partial premature separation of the placenta. In the next category, the three to four range, one infant was a primip-breech and the other two were from pre-eclamptic mothers. In all, the low Apgar group included two primip-breeches, five patients with placental abnormalities, five patients with pre-eclampsia, one patient with diabetes, two patients with premature rupture of membranes and two stillbirths.

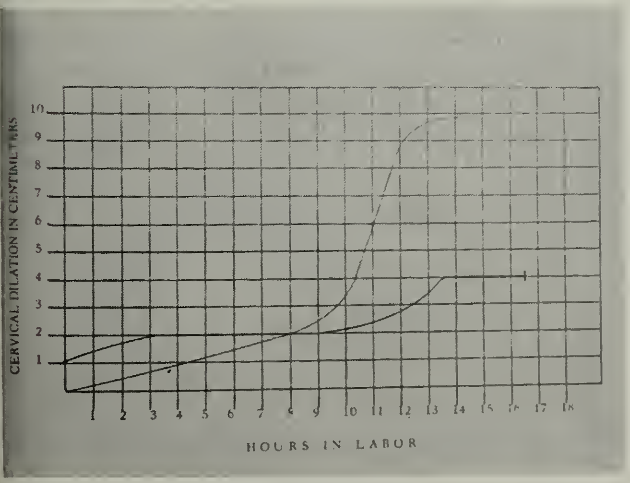

Fig. 3—Graph III

TABLE 2

APGAR SCORES IN PATIENTS WITH NORMAL LABOR CURVES

9-10	*7-8*	*5-6*	*3-4*	*1-2*	*0*
42	11	8	3	2	2

In comparing the normal pattern group vs the abnormal labor pattern group, at first glance there is almost an equal number of low Apgar scores in each group with 26 in the normal curve group and 22 in the abnormal curve group. However, 17 cases from the former group had underlying maternal pathology which had been previously listed and probably in some way related to the lower Apgar scores. In the group of abnormal labor curves, no such correlation exists between the low Apgars and maternal pathology; therefore these low scores probably can be attributed to the abnormal labor pattern.

CONCLUSIONS

In the whole series, there were 48 Apgar scores at one minute which were less than nine or, roughly, 37% of the total. This high percentage is partially due to the high risk population which was sampled, assuming that most of the patients monitored were not on an elective basis, but because the patients were at risk. In addition, a large number of abnormal labor patterns (62 of 130 or approximately 50%) is probably due to the same cause as above, since other authors do not report this high percentage. In a large series, Friedman[9] reports approximately 10% of patients have abnormal patterns.

In summary, transient, isolated and unrelated observations are not adequate for evaluation of labor which is a nonlinear dynamic process. The Friedman curve is a simple, inexpensive, easily interpreted monitor of labor progression.

We are presently plotting Friedman curves on all patients in labor at St. Luke's Hospital. The graph alerts the nursing personnel as well as the physician when there is a significant deviation from the normal curve.

The greatest value of the graph has been the clearly visualized point at which the latent phase is terminated and the active phase begins. After this point is reached, any protraction or plateauing is associated with increased fetal morbidity and is an indication for intervention.

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Renal Disease in Central Missouri

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Spontaneous Anterior Dislocation

(Continued from page 808)

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JOHN M. GRIFFIN, M.D. *and*
BART LISSNER, M.D., *St. Louis*

Tape Splinting for Mallet Finger

The authors describe a simple technique for tape immobilization of the mallet finger in patients with injuries which are unassociated with significant fracture of the dorsal lip of the distal phalanx and are of less than seven-days duration. Doctors Griffin and Lissner are from the Department of Plastic Surgery, St. Louis University School of Medicine.

During the past four decades, diverse types of treatment have been suggested for acute rupture of the insertion of the extensor tendon of the finger from the base of the distal phalanx, the so-called acute mallet finger injury.[1-6] Included in these methods have been various means of splinting the affected finger. As Pratt observes, however, "customary methods of casting . . . are difficult to apply, are generally clumsy, have the danger of local areas of pressure and frequently limit the activity of the rest of the hand."[5]

We have used a single piece of half-inch tape as a splint fixation for the acutely injured mallet finger in four patients. Although this method is used by other surgeons, we have not found a written description of it in the literature. This method is used for patients with injuries of less than seven-days duration which are unassociated with significant fracture of the dorsal lip of the distal phalanx.

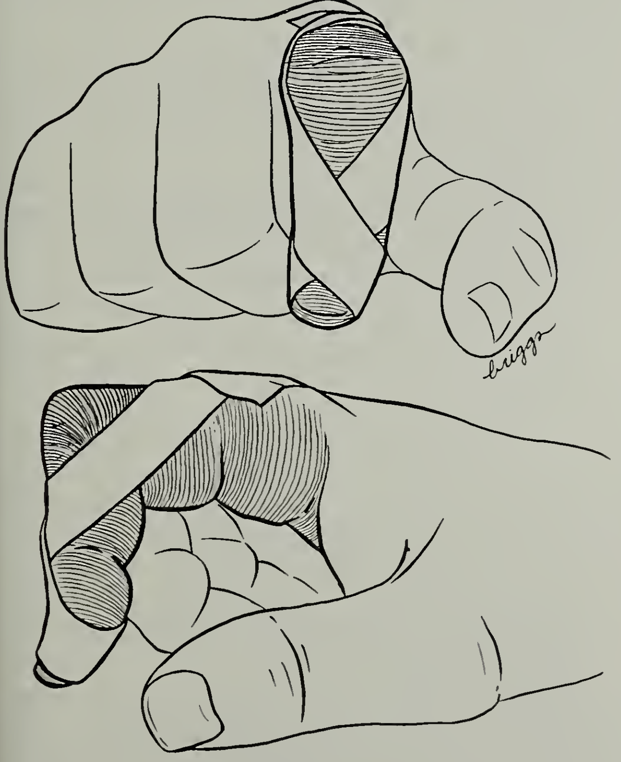

Fig. 1

The injured finger is first cleansed and coated with tincture of benzoin. A piece of one-half inch adhesive tape is applied to the finger so that the distal interphalangeal joint is immobilized in moderate extension and the proximal interphalangeal joint is immobilized in about 60 degrees of flexion (Fig. 1). The finger remains immobilized from four to six weeks in this manner. Tape splinting of the distal interphalangeal joint is continued for an additional four to six weeks. This method of tape immobilization is (1) easy to apply, (2) is comfortable, (3) is as effective as the more cumbersome methods of external splinting of the mallet finger deformity, (4) can be accomplished without anesthesia for an outpatient, (5) uses no special equipment and (6) can be observed and changed with ease in the office during the follow-up period.

Summary

A simple technique of tape immobilization of the mallet finger is described.

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Special X-ray Exhibit

SIDNEY RUBIN, M.D., RODGER LAMBIE, M.D. ***and***
EDWIN HERMAN, M.D., ***Kansas City***

Radiologic Problem Case

An 85-year-old white woman was admitted to the Menorah Medical Center (MMC) with a history of right lower quadrant pain associated with anorexia and nausea, but no vomiting.

Past History: This hospitalization in December, 1971 was one of many admissions to the MMC, the most recent being just two months previously (Oct. 17, 1971). The patient's complaints have been identical in that she experienced anorexia sporadically for the past two years. There was no weight loss.

Physical Examination: A small scar was identified in the right lower quadrant. This was the residual of an appendectomy performed in 1948.

Laboratory Data: A Schilling's Test was normal as were the values in the SMA-12. The only positive finding was a hemoglobin value of 10 gm/100 ml, which was recorded on this admission. This was compared to a 13 gm/100 ml hemoglobin value reported in the chart from the October hospitalization.

Radiological Examination: The stomach examination in October was normal except for the duodenum, which was deformed and clover-leaf in appearance. There was no roentgen evidence of ulcer activity. A small bowel evaluation followed via an interval study with spot pressure radiographs of the ileum and cecal area (Fig. 1). The ileum was seen to enter the colon in a normal manner with normal appearing ileal valve lips. No abnormality was noted in the cecal caput. Several previous barium examinations were considered as normal.

The examination of the colon on the last admission demonstrated the irregularity of the medial wall of the cecum (Fig. 2). The deformity was purely a flattened medial wall with a slightly convex defect into the barium outline of the colon. This defect might have been considered extrinsic if the patient had not had the history of a previous appendectomy, which was verified.

Radiological Diagnosis: Carcinoma of cecum.

Pathological Diagnosis: The terminal ileum was unaltered. The cecal pouch was involved with a polypoid carcinoma that had ulcerated and indurated the medial wall of the caput with tumor replacing colonic mucosa. There were no involved lymph nodes.

Discussion

The elusive nature of cecal lesions is well recognized by radiologists and gastroenterologists. While there are several reasons for this actuality, the predominate explanation is purely anatomical:

1. The cecum is a distensible organ which may be hidden from total view by its pelvic position.
2. Small lesions of the anterior wall may be obscure due to the early filling of the colon lumen. When this occurs, it is physically impossible to observe the lesion in profile.
3. Marked discomfort is incurred by the filling of the colon and the patient's inability to retain the barium mitigates against a methodical examination.
4. While poor colon preparation is a significant obstacle for early diagnosis, this factor can be avoided by proper preparation. The radiologist is not, as yet, capable of differentiating feces from some neoplasms. The reports of "pseudotumors" of the colon due to adherent feces is embarrassingly frequent in the scientific annals.[1]

Our awareness of this problem and the inherent limitations of the routine radiographic study has evoked many supplemental studies to assist in early detection of cecal or right-sided colon tumors. While contrast studies have been

The authors of this series of articles presenting unusual radiologic problem cases are from the Department of Radiology, Menorah Medical Center, where Doctor Rubin is Chairman. They were assisted in this case by Pierre Keitges, M.D., Pathologist.

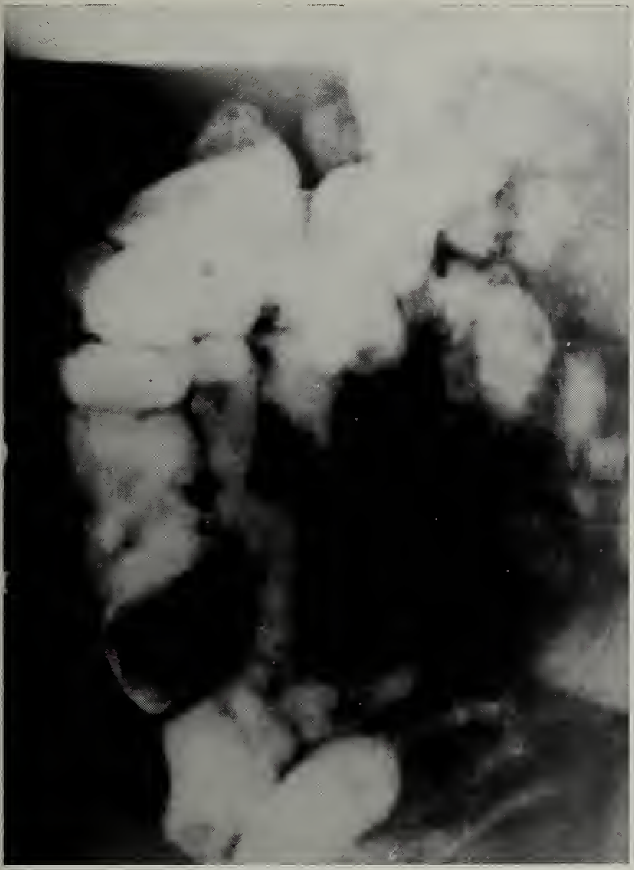

Fig. 1 Interval study with nonopaque pressure mechanism over cecal area. Ileal-cecal region and caput of cecum clearly outlined and considered normal. A colon examination done the following day was radiologically normal.

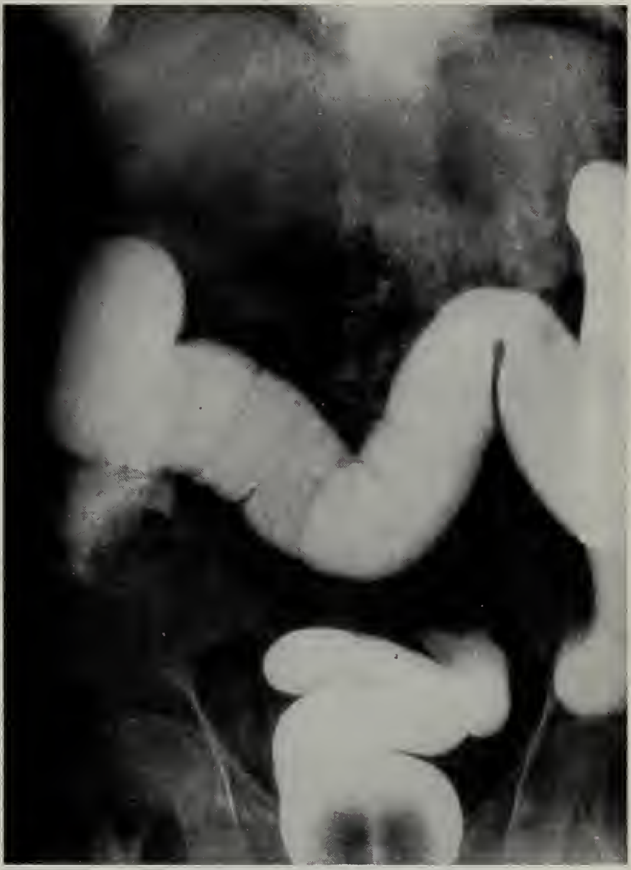

Fig. 2 Colon examination two months following that of Fig. 1. Convex deformity demonstrated on medial wall of cecum appears smooth and suggests extrinsic pathology.

recommended, they have failed to provide the answer in our experience.

In recent years, we have utilized a maneuver which consists of a double fill-up of the colon,[2] first in the supine position and refilling the bowel in the prone position immediately following evacuation. This has permitted the detection of some small lesions which otherwise might be overlooked. Many other techniques are recorded in the literature, all resulting from an awareness of the potential error of omission reflected in individual experiences.[3]

The reality of this state of affairs is best appreciated by critical self-reviews. This was carried out by our group in a retrospective study of 217 tumors which were confined to the right side of the colon (cecum or ileal-cecal area). Twelve percent of the cecal carcinomas were missed in spite of a 5% incidence of repeated examination. The repeat studies were initiated when blood loss was evident both in the laboratory detection of blood in the feces and in the clinical presence of anemia.

Cooley, Agnew and Rios[4] reviewed a similar number of cases and demonstrated a failure of detection in 27% of 228 cases. Other authors have noted comparable degrees of accuracy in retrospective evaluations.[5–7]

It should be apparent, therefore, that every technique should be utilized to aid in early detection of cecal neoplasm, including fiberscopic and colonscopic viewing. A negative examination (interval studies of the small bowel with evaluation of the cecum from above and colon examination) does not exclude the possibility of a carcinoma. Occult blood in the stool and an anemia should only warn the clinician to persist in his efforts to locate the cause, even if an occasional exploration is necessary.

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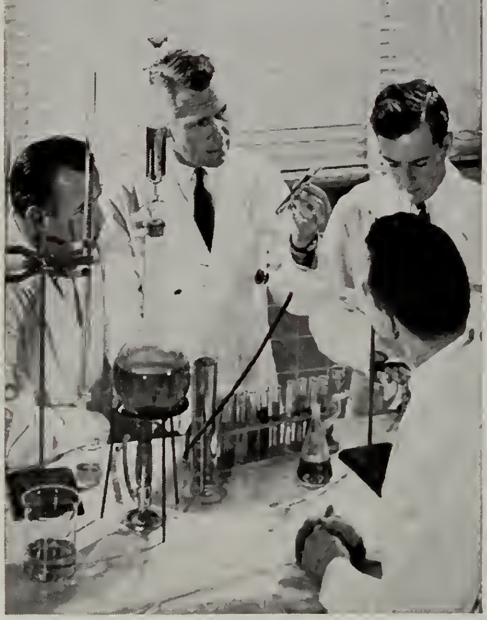
"Without your help



. . . I simply would not have made it through medical school!"

(The following letter was received on Oct. 1, 1971 from a physician who, as a student, received financial assistance from the Missouri State Medical Association members who have contributed to the Missouri State Medical Foundation. It is printed with his permission.)

Dear Doctor:

"Thank you very much for your thoughtful letter concerning receipt of my final payment on my medical student loan.

"I can well remember the feeling of destitution associated with being a reasonably good student but lacking funds with which to enroll for the next semester in medical school. Having always been, perhaps, more than adequately endowed with pride, it was a lesson in discipline and humility to go seeking financial assistance. However, the effort brought me in contact with some very nice people who really do a lot to keep one's faith in human nature alive.

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President's Message

As one enters the portals of the hospital these days one is accosted by some wild-eyed citizen shrieking, "Unionization—Guilds—Strike—Sue." This occurs, despite the competent refutation of these ephemeral ideas by President Carl A. Hoffman of the AMA. Still, it is symptomatic of the unrest that lies smoldering in the rank and file members. At the present time, the AMA is engaged in a laudatory effort to increase membership. In this area, this will not be a marked success nor will we be able to maintain our present level of membership unless some statesmanlike leadership is demonstrated. At the last meeting of the House of Delegates, a resolution was passed requiring a publication in the *AMA News* of what the AMA is doing for the membership. The pallid recitation of domestic housekeeping duties in the Chicago office published in the July 10, 1972 issue of the *AMA News* was not an adequate response. I am certain that more of this will be heard at the House of Delegates meeting in Cincinnati. As one of the service organizations puts it, "Make no small plans. They have little imagination to stir men's minds."

Walter T. Gunn, M.D.

The average member envisions himself in the center of the pie as the mice nibble around the edges. When he points to one of these, he is ostensibly reassured by a pat on the back and the statement that it is only a small bite. He is tired of this aggravating harassment of constant attacks from all sides by regulating third-party mechanisms (Champus—Medicare—Medicaid—F.D.A., Phase II Freeze, etc., etc., ad nauseam). He feels that his national organization is not out in the front of the battle protecting him. What he desires . . . nay, I will say demands . . . is a head-on confrontation of the detractors of medicine that will restore our tarnished reputation. I do not denigrate the fine efforts of the Washington AMA office. As in our own state, the few men available to contact the hundreds of senators and representatives do an outstanding job of presenting Organized Medicine's viewpoint on all medical legislation. Could not some of this activated blood be infused into some other departments, such as Legal and Public Relations?

At the present time, we are receiving at the state level an avalanche of requests for approval of federally-funded programs for various ancillary medical projects.

There is a rumor extant that Royal O. Cooper is initating a new Medical Cult. It is an admixture of hypnosis, acupuncture and Shiatsu. He has the format ready. All he needs is a name. Any suggestions?

Missouri State Medical Foundation

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2. Have his home residence in Missouri.
3. Be in need of financial aid to complete his or her medical education.

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2. Loans will be made for any worthy purpose directly connected with furtherance of the student's medical education, including tuition, fees, books, equipment needed for medical education, necessary living expenses while in residence at the school, etc.
3. Ordinarily, the maximum loan for any student for any one school year will be $1,500. A student holding one or more loans from the Foundation or any similar loan fund shall be eligible to apply for further assistance if the need exists, but such assistance shall not be obligatory on the Foundation Committee.
4. Proceeds of the Loan will be paid to the student for disbursement.
5. Decisions of the Foundation Student Loan Fund Committee in granting of loans will be final.

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1. Loans will bear interest at the rate of 2% per annum from the date of the loan through two years after the date the recipient begins the practice of medicine. Such interest may be paid at the student's option at any time after receipt of the loan, but payment of interest is not obligatory until the principal of the loan becomes due and payable.
2. The principal of the loan, and accrued interest, will become due and payable one year after the date the recipient begins medical practice, with the provision that repayment shall be completed in no more than four additional years from the date and that no less than one fifth of the total original principal, plus accrued interest, shall be due each year.
3. On the date the principal of the loan becomes due, the interest rate on the unpaid balance increases to 4% per annum, and increases by 2% per year thereafter, to a maximum of 8%.
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Woman's Auxiliary

IMPORTANT CONFERENCE—IMPORTANT SPEAKERS

This is it . . . the month for the MSMA Woman's Auxiliary's 1972 Statewide Fall Conference. The dates will be October 24-25. Events will include a Legislative-AMPAC-MMPAC Day for Auxiliary members, a benefit dinner (the first) for MSMA and Auxiliary members in honor of the Missouri State Medical Foundation and a Health Education Day, arranged with the assistance of the MSMA Council and Ad Hoc Committee.

These events per se are interesting, inviting and self-explanatory. We feel that the distinguished state- and nationally-known people who will appear emphasize more pointedly why it is so important for every physician's wife to attend and why representatives of approximately 50 other statewide groups will participate. Rarely do we have the opportunity to learn so much from so many eminent speakers, in addition to our own Auxiliary members involved in the Conference. Read this list of Conference program participants and I'm sure you'll agree!

Mrs. Keith D. Jones
President

Mrs. John M. Chenault, Decatur, Ala., AMPAC Board.
Dr. John I. Matthews, M.D., Jefferson City, Legislative Chairman, MSMA.
Royal O. Cooper, Jefferson City, Assistant Executive Secretary, MSMA.
James C. Cope, M.D., Columbia, MSMA Council Chairman and Fifth District Councilor.
Walter T. Gunn, M.D., St. Louis, President, MSMA.
Roy Pfautch, St. Louis, Dinner Guest Speaker. Subject: Practical Politics.
Arthur L. Mallory, Ph.D., Jefferson City, Commissioner, Missouri Department of Education.
Mrs. Linus W. Hewit, Tampa, Fla., Program Chairman for National Health Education, AMA Woman's Auxiliary.
William Carylon, Chicago, Assistant Director of Health Education, American Medical Association.
Robert Taylor, Ph.D., Jefferson City, Director of Health, Physical Education and Safety, Missouri Department of Education.
Grace McReynolds, Ph.D., Jefferson City, Director of Curriculum Development, Missouri Department of Education.
Charles Fast, Ph.D., Kirksville, Professor of Health Education, Northeast Missouri State College.
Dennis Compton, M.S., Kansas City, Assistant Director, Kansas City Model Day Care Corporation.
Warren Weinberg, M.D., St. Louis, Assistant Professor, Department of Pediatrics and Neurology, Washington University.
Basharat Jazbi, M.D., D.L.O., Copenhagen, Denmark, Visiting Professor of Otorhinolaryngology, University of Missouri-Kansas City.
Richardson K. Noback, M.D., Dean, School of Medicine, University of Missouri-Kansas City, Luncheon Guest Speaker.
Lofton R. Hudson, Ph.D., Kansas City, Director, Midwest Christian Counseling Service.
George Reeves, St. Louis, President, Missouri Senior Citizens Association.
William D. Bradshaw, M.D., Clinton, Sixth District Councilor, MSMA.

EDITORIALS

ELECTION YEAR

It is hardly necessary to remind you that this is an election year. Even so, it's appropriate to ask, "Do you personally know your representatives in both the national and state capitals? Do you personally know the candidates for offices to be filled this coming November?" If you answered "no" to both of these questions, then time is indeed short. If physicians are to have any impact on legislation relating to health it is incumbent that each of you pledge to yourself that you will take the time to know your representatives. You will also pledge to find time to become knowledgeable about legislation which could have an effect on medicine and health and to give your representatives the benefit of your knowledge and desires about that legislation.

It is, indeed, a sad state of affairs when as I heard one legislator say, "Even my own personal physician did not mention his desires to me on that bill. . . ."

If we as physicians are to have an input that is meaningful, then we must make the effort, and I feel sure that it will be appreciated by our representatives.

Therefore, I very strongly urge each of you to get to know your legislators who are already in office and get to know those candidates who are up for election this year. Support those of your choice and then maintain contact with them. Take time to study pending legislation and then inform your representatives of your desires.

WALTER C. GRAY, M.D.
President, Missouri Academy of Family Physicians
The Missouri Family Doctor

IT'S THAT TIME AGAIN

This is the season of the year when large numbers of young people complete their academic training and receive their medical degrees. Likewise, this is the time when many young doctors complete their post doctoral hospital or other special training and become members of the larger health-care-delivery team. To each of these groups and to each of them individually, we say welcome to the fold. All of you have received whatever kudos you may have merited during your training period. However, the greatest glory from this point on should be the self-satisfaction one receives from the services he provides the sick and afflicted.

Most of you, like I, will have sat through some kind of graduation ceremony where you were praised for your perseverance and challenged to new heights. So too, from this rostrum, we challenge you. We challenge you to join the ranks of organized medicine and work for its good. Some of you have been critical of "the system" which represents the majority of us in American medicine. I challenge you to join forces with many of us and make it better.

To you, my new comrades, no amount of locker room, coffee shop or curbstone griping, criticizing or proffering of solutions to problems gets the job done. Problems are solved, changes are effected and conditions are improved by hard work—organizational committee work.

So it's that time again—when our younger and new friends join our ranks. They come with fresh and bright ideas. We invite them to join us. We need them. Yes, we challenge them to do so.

CARL M. PETERSON, M.D.
President, Jackson County Medical Society
The Greater Kansas City Medical Bulletin

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(Left to right) Fred Wappell, athletic trainer at the University of Missouri, demonstrates taping techniques at the West Central Missouri Medical Society's Annual Conference for Physicians and Coaches. Dr. G. H. Reed of Appleton City, President of West Central Missouri Medical Society, presided at the business meeting following the Conference. Dr. W. C. Allen of Columbia and Dr. Nelson Greenland, program chairman, enjoy comments of the speaker.

West Central Missouri Hosts Physicians-Coaches Conference

The athletic trainer at the University of Missouri-Columbia and a Kansas City neurosurgeon discussed athletic injuries and their prevention at the Annual Conference for Physicians and Coaches presented by West Central Missouri Medical Society.

Fifty coaches and physicians from Bates, Cass, Cedar, St. Clair and Vernon counties attended the event which was held at Irene's Harvest House in Harrisonville on August 10. Dr. Nelson Greenland, Nevada, served as program chairman.

Principal speaker was Dr. Edwin MacGee of Kansas City who discussed "Acute at-the-Scene Treatment of Head and Neck Injuries."

Mr. Fred Wappell, athletic trainer for the Missouri U. "Tigers," then demonstrated taping techniques and discussed prevention of athletic injuries.

A member of the M.U. coaching staff extended greetings from the University and gave an overview of the school's football team and the coming season.

Special guests at the meeting were Dr. W. C. Allen of Columbia and Royal O. Cooper, Jefferson City, MSMA Assistant Executive Secretary.

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Adverse Reactions: Most frequently encountered are anorexia nausea, vomiting, and dizziness. Less frequently, diarrhea, epigastric distress, pruritus, weariness, drowsiness, giddines and headache have occurred. Rarely, tinnitus, hyperirritability numbness, abnormal sensation in eyes, blurring of vision, xanthopsia; hypotension, collapse; enuresis; transient rise in cephalin flocculation and SGOT; perianal rash, cholestasis and parenchymal liver damage; hyperglycemia; transient leukopen malodor of the urine, crystalluria, hematuria; appearance of li Ascaris in the mouth and nose. Hypersensitivity reactions

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The administration of meclizine to pregnant rats during the 12th-15th day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

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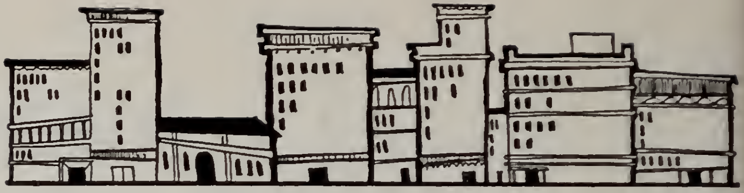
From the Medical Schools



ST. LOUIS UNIVERSITY

Dr. Donald W. Bussmann, assistant dean for student affairs, has been named associate dean for admissions and student affairs at the School of Medicine. Doctor Bussmann has served as assistant dean at the St. Louis University School of Medicine since 1964. He is chairman of the School of Medicine's admissions committee and assistant professor in internal medicine. He took his premedical studies at Princeton University and was awarded the M.D. degree by Washington University. He is associate physician at the St. Louis University Group of Hospitals.

Dr. Bussmann

Faculty and staff of the Anemia and Malnutrition Research Center of Chiang Mai Medical College and St. Louis University School of Medicine in Chiang Mai, Thailand were well represented at the Ninth International Congress of Nutrition held in Mexico City on September 3-9.

A total of ten scientific papers from St. Louis University and its Center in Chiang Mai were presented at the numerous sessions of the Congress. Members of the Chiang Mai staff joined St. Louis University investigators in the presentations.

Those attending included *Dr. Robert E. Olson,* chairman of the Department of Biochemistry and Director of the Center, faculty and graduate students of both Universities, as well as visiting faculty who conduct research at the Center, and both Thai and American members of the professional staff who participate in the teaching and research program of the departments of biochemistry, pediatrics and medicine of Chiang Mai University. Nine of the papers to be presented at this Congress represent studies by Center personnel on the biochemical causes and cure of protein-calorie malnutrition in children.

Doctor Olson presented one of the main lectures in a symposium titled "Recent Advances in the Knowledge on Vitamin Function and Metabolism" on September 6. His subject was "The Mode of Action of Vitamin K in Regulation of Prothrombin Synthesis."

The Center, established in 1967, is supported with the aid of grants from the National Institutes of Health, the Rockefeller Foundation and the Government of Thailand. Its operating budget is $350,000, excluding $1,000,000 being spent on a building to house the Research Center. At present, nine American scientists and 50 Thai personnel are active members of the staff.

Doctor Olson, who travels to the Center several times annually to direct the overall research, says the scientific mission of the program is to determine the biochemical origin of protein-calorie malnutrition and the most effective mode of therapy. Faculty and graduate students of both Chiang Mai and St. Louis Universities are investigators at the Center.

Dr. Avudh Srisukri, chairman of the Department of Pediatrics and associate dean of the faculty of medicine of Chiang Mai University, was appointed codirector of the Center this year.

The Center has become known for the intensive metabolic studies in both children and adults suffering from anemia. In addition to all of the tropical diseases prevalent in this area, malnutrition syndromes have been observed in both age groups in the Chiang Mai area. Doctor Olson said the Center's findings on the prognosis for the undernourished surviving child, foods for the expanding world and approaches to the practical solutions and the relationship of nutrition to infection observed in the children in Thailand were to be highlights of the Mexico City meeting.

Construction of the Center in Thailand is nearing completion. Doctor Olson will participate in the dedication ceremony to be held on Jan. 8, 1973 in Chiang Mai with the King of Thailand presiding. An international symposium on protein-calorie malnutrition is being organized for the three days immediately following this dedication.

A contract of $109,869 has been awarded the St. Louis University School of Nursing and Allied Health Professions for the training of physician's assistants.

A new effort to train physician's assistants in primary care was launched by the U. S. Department of Health, Education and Welfare (HEW) with the awarding of the contract. A total of eight students have been enrolled in the St. Louis University program since last September, while 16 students are enrolled in the 1972-1973 program. They will begin their clinical training at St. Louis University and allied hospitals in January.

The St. Louis Inter-Institutional Physician's Assistant Training Program was established on Aug. 31, 1971 through the cooperative efforts of the St. Louis Veterans Administration Hospitals, St. Louis University and Washington University Schools of Medicine, St. Louis City and St. Louis County Junior College Districts and the Bi-State Regional Medical Program. This program, the first established in the Midwest area, is administered through the newly-established Department of Physician's Assistants at St. Louis University School of Nursing and Allied Health Professions. The St. Louis VA Hospitals provided a major impetus to the development of this program and it is directed by *Francis A. Zacharewicz,* M.D., coordinator for medical education and allied health at the St. Louis VA Hospitals. Doctor Zacharewicz is assistant professor of internal medicine at the St. Louis University School of Medicine.

Further information concerning the program may be sought by contacting *Charles E. Berry,* M.Sc.H.A., J.D., associate dean, St. Louis University School of Nursing and Allied Health Professions, 1401 South Grand Blvd., St. Louis, Mo. 63104. (314) 865-2288, ext. 554.

WASHINGTON UNIVERSITY

The first annual lecture honoring the late *Wendell G. Scott,* M.D., was given on September 11 in the Louis A. Scarpellino Auditorium in the Mallinckrodt Institute of Radiology.

Michel M. Ter-Pogossian, Ph.D., professor of radiation physics in radiology, spoke on "The New Horizons of Image Intensification in Diagnostic Radiology."

Doctor Scott, who died on May 4, 1972, was professor of clinical radiology. Prominent in the radiological profession, he also was a member of the President's National Cancer Advisory Board. A portrait of Doctor Scott, painted by Mr. Fred Conway of St. Louis, was displayed at the auditorium entrance.

The School of Medicine has received $470,000 to be used in a program for developing improved methods of preventing coronary artery disease.

A lipid research center will be established with the funds from the National Heart and Lung Institute (NHLI) of the National Institutes of Health. The NHLI is providing $2.81 million for six such clinics in various parts of the country as part of the expanded attack on arteriosclerosis (hardening of the arteries).

David M. Kipnis, M.D., professor of medicine, and *Gustav Schonfeld,* M.D., associate professor of preventive medicine, will be co-directors. *Robert E. Shank,* M.D., Danforth Professor and head of the Department of Preventive Medicine and Public Health, will administer the program. Dr. Schonfeld said the program will be directed at prevention of premature blood vessel disease leading to heart attacks by identifying and treating persons with blood-fat abnormalities.

The March of Dimes national foundation has awarded two grants totalling $66,125 to the School of Medicine faculty in its birth defects preventive effort.

Philip R. Dodge, M.D., professor and head of the Department of Pediatrics, has received $37,966 for diagnosis and treatment of congenital (inherited) defects of the central nervous system. Under the direction of Doctor Dodge and *Marvin A. Fishman,* M.D., assistant professor of pediatrics, the program serves children with disorders such as hydrocephalus (abnormal fluid collection in the skull) and involves more than 700 treatment visits per year. The center in St. Louis Children's Hospital is part of a March of Dimes-supported network of 100 genetic service programs at medical schools and teaching hospitals throughout the country.

Richard E. Marshall, M.D., assistant professor of pediatrics, was given $28,159 for studies of enzymes in fetal development. He will trace the development of these proteins secreted by the body cells by examining the growth and action of nucleic acids in mouse embryos (pre-birth stage).

Washington University School of Medicine has enrolled its largest class—120 freshmen. The Class of 1976, which includes 24 women, was selected from 5,007 applicants. Twenty are from the metropolitan St. Louis area. Ten received bachelor's degrees from Washington University, three from University of Missouri-St. Louis and one each from St. Louis University and from Lindenwood College. Also enrolling on the medical campus were 85 students in health care administration, 38 in physical therapy, 49 in occupational therapy and three in x-ray technology.

UNIVERSITY OF MISSOURI-COLUMBIA

Six of Missouri's most distinguished medical school graduates will return to Columbia in November to deliver scientific lectures relating to their work.

The occasion coincides with the annual homecoming of medical alumni for "*M.D. Day*" and an observance of the founding the University of Missouri School of Medicine on the Columbia campus 100 years ago.

The scientific program will begin at 10 AM on Friday, November 17, with lectures that day by *Dr. Eugene Brody,* MU class of 1943; *Dr. George Gay,* class of 1961; *Dr. Robert M. Heyssel,* class of 1951; *Dr. James Eugene Lewis,* class of 1939; *Dr. Frederick C. Robbins,* class of 1938; and *Dr. William J. Wilson,* class of 1958.

A banquet and dance are scheduled for Friday evening at the Ramada Inn.

The Saturday morning program will begin with departmental chairmen addressing the visitors and alumni to briefly outline each department's current activities. This will be followed by programs within the respective departments when alumni and other guests may visit the departments of their choice.

The Missouri football Tigers will meet Iowa State in Memorial Stadium Saturday afternoon. The Classes of 1942, 1947, 1952, 1957, 1962 and 1967 are planning reunions during the weekend.

Dr. Robert L. Jackson, chairman of the Pediatrics Department, has been invited to give the keynote speech at the second international Bielinson symposium on diabetes in juveniles to be held this month at Bitan-Aharon, Israel.

A previous Banting Medal winner (an award named after the codiscoverer of insulin), Doctor Jackson is internationally noted for establishing diabetes as an important entity in pediatrics.

Dr. Richard A. Guthrie, also of the UMC Pediatrics Department, was invited to present scientific papers at the conference but will be unable to attend. Doctor Jackson will report on results of research both he and Doctor Guthrie have carried out.

Fifty-two recent graduates of the School of Nursing—more than two thirds of the class—are at work at nursing jobs in nine Missouri cities and towns.

The five Columbia hospitals attracted 30 of the 77 nurses graduated between August, 1971 and August, 1972. Fifteen accepted jobs in St. Louis. Others went to Maryville, Hermitage (Hickory County Public Health Department), Moberly, Mexico, Slater, Savannah and Springfield. Four are presently attached to the U. S. Army Nurse Corps and two settled down to become homemakers.

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New Members

Michael J. Curry, M.D., 2850 W. Clay, St. Charles, has become a member of St. Charles-Lincoln County Medical Society. Dr. Curry is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at the University of Missouri in 1966. He specializes in internal medicine.

Gary A. Dyer, M.D., University of Missouri Medical Center, Columbia, has become a member of Boone County Medical Society. Dr. Dyer is a native of St. Joseph, received his preliminary education at Central Missouri State College and his M.D. degree at the University of Missouri in 1966. He specializes in dermatology.

Grinny H. C. Ho, M.D., 808 E. Wakefield, Sikeston, has become a member of SEMO County Medical Society. Dr. Ho is a native of Taitung, Taiwan, received his preliminary education at China Medical College and his M.D. degree at China Medical College in 1967. He specializes in obstetrics and gynecology.

Larry S. Johnsgard, M.D., N-724, University of Missouri Medical Center, Columbia, has become a member of Boone County Medical Society. Dr. Johnsgard is a native of Fargo, N. D., received his preliminary education at the University of North Dakota and his M.D. degree at Temple University in 1965. He specializes in general pediatrics (neonatalogy).

Donald J. Joseph, M.D., University of Missouri Medical Center, Columbia, has become a member of Boone County Medical Society. Dr. Joseph is a native of Summerfield, Ill., received his preliminary education at the University of Illinois and his M.D. degree at St. Louis University in 1946. He specializes in otolaryngology.

Joseph G. Kelly, M.D., 9406 E. 63rd, Kansas City, has become a member of Jackson County Medical Society. Dr. Kelly is a native of Kansas City, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1971. He is in family practice.

James L. Lehr, M.D., University of Missouri Medical Center, Columbia, has become a member of Boone County Medical Society. Dr. Lehr is a native of Kirksville, received his preliminary education at Amherst College and his M.D. degree at the University of Missouri in 1968. He specializes in radiology.

Alan Oestreich, M.D., N-217, Missouri University Medical Center, Columbia, has become a member of Boone County Medical Society. Dr. Oestreich is a native of New York, N. Y., received his preliminary education at Princeton University and his M.D. degree at Johns Hopkins in 1965. He specializes in diagnostic radiology.

John E. Pawsat, M.D., 4320 Wornall Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Pawsat is a native of Fond du Lac, Wis., received his preliminary education at St. Louis University and his M.D. degree at the University of Wisconsin in 1965. He specializes in orthopedic surgery.

Eugene G. Petersen, M.D., 23rd & R. D. Mize Rd., Independence, has become a member of Jackson County Medical Society. Dr. Petersen is a native of St. Joseph, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1957. He specializes in radiology.

Joseph A. Pinkerton, Jr., M.D., 4320 Wornall Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Pinkerton is a native of Franklin, Tenn., received his preliminary education at Vanderbilt University and his M.D. degree at Vanderbilt University in 1963. He specializes in general surgery.

Kenneth F. Scott, Jr., M.D., 807 Stadium Rd., Columbia, has become a member of Boone County Medical Society. Dr. Scott is a native of Kansas City, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1972. He is in family practice.

Harry A. Stewart, M.D., 4706 Broadway, Kansas City, has become a member of Jackson County Medical Society. Dr. Stewart is a native of Charlotte, N. C., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1962. He specializes in psychiatry.

Kenneth F. Struessel, M.D., 214 Eastgate Bldg., Columbia, has become a member of Boone County Medical Society. Dr. Struessel is a native of St. Louis, received his preliminary education at the University of Missouri and his M.D. at the University of Missouri in 1964. He specializes in psychiatry.

Robert L. Van Dervoort, Jr., M.D., 201 W. Broadway, Columbia, has become a member of Boone County Medical Society. Dr. Van Dervoort is a native of Danville, Ill., received his preliminary education at Princeton University and his M.D. degree at Northwestern University in 1966. He specializes in pediatrics.

Physician's Assistants—Nurse Associates

(Continued from page 785)

and ladderwise, in contrast to the rigidity and nontransferability of educational requirements for most established allied health fields in the United States.

Finally, the development of additional health categories and educational programs will be facilitated by the recent AMA adoption of *Guidelines for the Development of a New Health Occupation,* which includes advice on Scope of Duties, Need, Education and Training, Employment, Professional Certification and Career, Education and Geographic Mobility.[6] Also, the AMA, in collaboration with the American Academy of Family Physicians, the American College of Physicians and the American Society of Internal Medicine, recently prepared *Occupational Guidelines for the Assistant to the Primary Care Physician* and adopted *Essentials of an Approved Educational Program for the Assistant to the Primary Care Physician.* These essentials must be met by training programs for physician's assistants which seek funding from the National Institutes of Health Bureau of Health Manpower Education. The Bureau has $6.3 million available for such programs emphasizing physician's assistants for medically underserved areas.

Legal Aspects

The current legal status of the physician's assistant reflects the complexities which may affect any new health manpower category. Thus, the question arises as to which functions now performed by physicians should be delegated to physician's assistants. State medical practice laws recognize that physicians may delegate certain functions to an unlicensed person but do not specify which functions. Ordinarily, delegation is determined by custom and usage, and the courts are willing to accept the judgment of the medical profession but less willing to accept that of the individual physician. Accordingly, the responsibilities of the physician's assistant will have to be defined by physicians, by accredited educational programs and by certification of graduates by appropriate professional organizations or governmental bodies or both.

Custom and usage may offer problems with reference to malpractice defense until a certain amount of experience has been gained. In the meantime, delegation of an unusual function may subject the physician's assistant to a charge of practicing medicine without a license and the physician to a charge of aiding and abetting the unlawful practice of medicine. For example, in 1966, a California neurosurgeon and his assistant were convicted of medical malpractice when the surgeon allowed a skilled former corpsman to drill burr holes during brain surgery.[7]

Ten states (including Kansas, Arkansas and Oklahoma) have enacted general exception clauses to authorize delegation of functions by physicians to physician's assistants, and other states are considering such legislation. Moreover, a model statute has been prepared by conferences sponsored by Duke University. Thus far, nine states, including California (first) and Iowa, have enacted legislation to authorize the State Board of Medical Examiners to approve training programs for PA's and approve a physician's use of no more than two graduates of such programs. In 1971, similar legislative proposals were pending in 11 more states, including Illinois, and the bill prepared for introduction into the Missouri legislature would have proposed a similar law.

If a physician's assistant (PA) is employed by a hospital, he functions as a hospital employee and the hospital's legal counsel should determine if any changes are required in the hospital charter or bylaws to permit the medical staff to grant specific privileges to physician's assistants.

At the present time, the various states license as many as 25 health professions and occupations, including midwifery (Missouri licenses 19, including midwifery). In general, independent practitioners are licensed and dependent practitioners are certified or accredited. While licensure of physician's assistants would offer some protection to employing physicians and their assistants, licensure at this time risks early rigid definitions, obsolescence and possible undue restrictions for PA's and their physician employers, as well as decreased interstate mobility. Thus, the recent (1969) Colorado law certifying child health associates referred to previously is already thought by some to be too restrictive even though the first child health associates will not be graduated until the fall of 1972. Accordingly, in a 1971 Report on Licensure and Related Health Personnel Credentialing, HEW recommends a two-year moratorium on state licensing laws for PA's and other new health categories. The Report also recommends broader physician delegation authority by the states. The AMA, American Hospital Association and the American Academy of Family Physicians have likewise called for a similar legislative moratorium. The AAFP further recommends that it be the responsibility of the Board of Medical Examiners of each state to establish the extent of tasks and responsibilities that may be performed by PA's under physician's supervision. Also, the AMA Council on Health Manpower is now developing a national certification program for (primary) PA's in collaboration with the National Board of Medical Examiners which is expected to become operative by the end of 1973.

On the other hand, the legal situation regarding nurses and their expanding roles in practice is different from PA's in that nurse practice acts permit the performance of a wide range of activities which can be delegated by physicians. The only prohibitions are diagnosing and prescribing.

Professional liability coverage, of course, is available to nurses. With reference to PA's, a majority of professional liability carriers recently surveyed responded positively to providing coverage both for physicians employing PA's and for PA's. Also, AMA's major malpractice carriers recently established a policy to furnish liability coverage to the PA at a rate approximately 50% of that charged the physician.

Evaluation

The Board on Medicine of the National Academy of Sciences in May, 1970 urged experimentation with various combinations of health personnel and technologic advances. Noting that there was some speculation as to whether persons other than physicians can act with some degree of independence in dealing with more routine health problems, the Board pointed out the need for data on the effect of such assistants on the quality and quantity of health care and urged their trial on an experimental basis.

The AMA and the National Center for Health Services Research and Development (NCHSRD) of HEW are providing leadership in assessing the quality of PA and nurse associate programs. The AMA guidelines for PA's and other new health occupations, as well as AMA essentials for approved PA educational programs, have been mentioned. NCHSRD currently is sponsoring evaluation of the MEDEX program and also will sponsor evaluation of other types of physician extender programs including nonmilitary PA's, nurse-midwives, pediatric nurse practitioners, school nurse practitioners and clinical pharmacists.

A recent Duke University study showed that the "PA saved 43% of a physician's time previously spent in routine work,"[8] and a similar study in Colorado showed that pediatric nurse associates saved 33% of the pediatrician's time.[9] These findings are in keeping with earlier estimates that 50% of a pediatrician's time is spent doing things which could be done by others[10] and that 20% to 30% of the work of general practice could be done by auxiliary personnel under physician supervision.[11]

With reference to quality, in one study pediatric nurse associates saw the patient shortly before the physician and in 82% of 280 "conditions" ranging from well through varying degrees of illness, the physician and the nurse were in agreement. In an additional 17%, there were insignificant differences.[9] Also, a recent controlled study indicated that nurse associates in a clinic situation provide increased continuity and comprehensiveness of care and greater patient satisfaction.[12]

With reference to costs, Duke University estimates the yearly cost of training PA's to be about the same as that for medical students, although the PA training period, of course, is shorter. The cost of the MEDEX program per student is less, since much of the training takes place in the office of the preceptor. Estimates of the costs of training pediatric nurse associates vary from $1,000 to $3,000 per student.

In its special report entitled *Higher Education and the Nation's Health* (1970), the Carnegie Commission on Higher Education stated on pages 62 and 69 that experimental programs for the training of physician's assistants, though of shorter duration, cost as much per year as the education of physician candidates, particularly in the current early stages when classes are small. The Commission also recommended a substantial federal contribution toward the cost of such programs.

In evaluating physician assistant and nurse associate programs, salaries as well as costs of training are of interest. Most PA's earn from $8,000 to $15,000 per year, although a few are salaried at higher levels. The United States Civil Service Commission rates physician's assistants (including those employed in VA hospitals) at GS 7-11 levels depending upon qualifications and experience. Salaries for these classifications range from approximately $8,500 to $16,000 per year. Nurse associates and others with appropriate nursing experience also can qualify for these civil service positions. Thus far, however, nurse associate positions in the private sector have commanded lower salaries than those of physician's assistants, although further experience may well rectify this situation.

Physician Acceptance

As might be anticipated, physician viewpoints on physician's assistant-nurse associate concepts vary from enthusiastic approval to frank disapproval, with the majority adopting a "wait and see" attitude. Thus, at the last World Medical Association Assembly, although the U. S. and German delegations warned of physician's assistant problems, the Assembly delegates generally agreed that PA's are here and should be properly "trained, licensed and controlled."

As previously indicated, the Board on Medicine of the National Academy of Sciences endorses the PA concept and urges an adequate trial. Likewise, the AMA endorses the concept of innovation and experimentation in developing new categories of health manpower. Reference has already been made to the favorable stands of the American Academy of Pediatrics, American Academy of Orthopedic Surgeons, American Urological Association, American College of Physicians, American Society of Internal Medicine and the American Academy of Family Physicians. Moreover, six nationally known physicians, including two Mayo Clinic members (James C. Cain, M.D. and J. M. Stickney, M.D.) serve on the Board of Advisors of The American Association of Physicians' Associates (the professional PA organization). A second professional PA organization, the American Association of Physician's Assistants, includes 11 Missouri physicians on its Advisory Board.

Recently, the Kentucky State Medical Association endorsed a University of Kentucky proposal for a pilot two-year PA ("clinical associate") program. On questionnaire survey in connection with the proposal, a majority of Kentucky physicians favored two years of college as a prerequisite for the program, whereas a minority concurred with the University-proposal prerequisite of high school graduation. In the recent questionnaire survey regarding PA's conducted by the Bi-State Regional Medical Program for the Missouri State Medical Association, responses were obtained from 3,000 MSMA members. Forty-five percent of solo practitioners and 62% of group practitioners agreed that physician's assistants might meet a need not adequately met by nurses or other employees. Moreover, 84% of affirmative responses indicated a willingness to hire one or more physician's assistants. Concerns expressed related to (a) competence of nonphysicians to perform tasks traditionally carried out by physicians and patient acceptance of nonphysicians in these roles and (b) medico-legal problems regarding professional liability.[1]

In 1969, a survey of physicians in Wisconsin showed that 41% to 44% of general practitioners, pediatricians and internists replying could use a PA but would limit his responsibilities by excluding physical examinations, emergency room procedures, postoperative care, uncomplicated deliveries, prenatal and well baby care and administration of anesthetics. However, physicians in smaller communities were willing to allow more responsibilities. Still another survey revealed that only 24% of 170 Maryland AFP members in private practice would hire a PA, whereas 71% said "no" and 5% did not answer the question.

Other physicians and some medical educators have expressed themselves on the subject of physician's assistants. Thus, one physician, a past-president of the American Academy of Family Physicians, stated that he would not have had time for the post of president were it not for his trusted assistant of 20 years' service who maintained the practice on a continuation and referral basis during times when the physician was away. Contrariwise, a medical educator stated that it would be simpler and more efficient to expand present schools of nursing than to start a new profession of PA's and that the types of health care delivered by physicians and nurses should be reorganized and curriculums more closely related to what the respective graduates do when they engage in practice. Another leader in medical education, Ebert (Head of the Department of Medicine, University of Minnesota) referring to PA's, questioned ". . . whether another health professional should be trained to act independently or semi-independently of a physician," although he also commented that ". . . physicians' assistants working directly under the supervision of physicians might well perform certain functions better than nurses."[13]

In 1968, Van Dellen,[14] in an editorial concerning physician's assistants, concluded that "second class doctors" are not wanted in the United States and that ". . . all medical treatment should be given by licensed physicians of the highest calibre." In the December, 1971, issue of the *Bulletin of New York Academy of Medicine,* Rousselot (former Assistant Secretary of Defense for Health and Environment) *et al*[15] concluded that

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> "We have outlined in considerable detail the evolution of the new health care practitioner recommended as the cure-all for the shortcomings in our health care system—the physician's assistant. We have outlined the experience in Soviet Russia of his counterpart, the feldsher, often used as the model whereby the PA prototype may be duplicated and introduced into our system. The apparent disillusionment in the Russian medical fraternity with this experience has been discussed. We have pleaded for the necessity of careful and objective evaluation of the PA in various settings prior to wholesale adoption or injection of this new worker into our health care delivery system. As an alternative we favor the augmentation of special skills within our nursing group and a significant increase in the production of physicians."

Also, in early June, 1972, then President-Elect of the AMA Charles A. Hoffman warned "that a second level" of medical care could result if caution is not applied to programs for PA's and that there is danger in "becoming too enthusiastic about training large numbers of PA's."[16]

And lastly, in an interview for *Medical Economics* in 1968, Rutstein of Harvard believed two things needed to be decided. "First, which of the physician's responsibilities demand his background, training and experience? Second, what manpower and womanpower resources or machines can be assigned to handle the jobs that don't necessarily need to be done by a doctor?" Doctor Rutstein looks upon the Duke and University of Colorado programs as stopgap measures and favors instead the development of a totally integrated, systematic, doctor-centered medical care constellation.[17]

Allied Health Acceptance

In an official American Nurses' Association (ANA) document, *The American Nurses View of the Emerging Physician's Assistant,* ANA stated "the term, physician's assistant, should not be applied to nurse practitioners who function in an extension of the nursing role." The ANA also has commented that PA's who are working where nursing practice is an essential part of health care present problems that flow from the ethical and legal relationships between physicians and nurses. Also, ANA supports a moratorium on licensure of new health categories until studies have determined the need for licensure reform. Similarly, the National Commission on Nursing and Nursing Education recently commented that the professions of medicine and nursing should plan jointly before setting up one more health occupation (the PA) that must coopt responsibilities and techniques of related groups. The Commission further observed that nurses not only can do more but, in many cases, are performing wider clinical duties than believed by either the public or physicians. Also, very recently, the HEW Secretary's Committee to Study Extended Roles for Nurses strongly recommended expanded and extended roles for nurses in the provision of health services, including primary care, acute care and long-term care.[18]

Early in 1972, the ANA and the AMA established a 16-member National Joint Practice Commission to recommend changes in medical and nursing practice for the improvement of health care in the U. S. It is anticipated that the Commission will give particular attention to the nurse associate and the physician's assistant. The ANA believes that these and other issues should be discussed at the state level as well.

Ms. Dilworth of the Division of Nursing of the National Institutes of Health (HEW) in 1970 raised the following questions relative to physician's assistants:

> "How will these assistants function, where will they practice, how much will they be paid and will they be *allowed* to write or give orders to nurses? How will nurses react to these orders, and what effect will they have on the nurse practice acts? Why were these programs developed at all? Why interpose another health professional into the already overcrowded health care scene? Why develop a new position when the logical person, with the best background for this type of training, is the professional nurse?"[19]

On the other hand, in an anecdotal account of the reactions of an expert nurse-educator to the day-to-day activities of one of the Duke PA graduates, Ms. Ingle states, "He is to the physician what the extremely capable secretary is to the top level executive." She further commented that the PA improves patient care from the physician's point of view by having laboratory results, etc. at the right place and time. From the patient's point of view, the PA gives tender loving care which the physician often cannot find time to give.[20]

Finally, a survey of PA's in a southern Illinois hospital, which was conducted with support from Bi-State RMP, included inquiries relative to PA acceptance by allied health personnel. Nurses on the hospital staff stated that the duties of the PA overlapped with theirs. Some thought he could be better used in rural practice than in a hospital. Others were interested in becoming a PA as opportunity presented. The last also was true of some of the technologists and technicians in the hospital and was due in part to the close relationship between the physician and the PA and, more pragmatically, because the PA's had higher salaries and social status.[21]

Patient and Public Acceptance

As pointed out, the Carnegie Commission on Higher Education in 1970 recommended a substantial federal contribution toward the cost of physician's assistant programs. The Commission, which consists of 19 national leaders in the fields of higher education, law, industry, finance and politics, further indicated its support of the PA concept by favoring expansion of the number of PA's rapidly enough to have an appreciable impact on the productivity of physicians. The Commission also regarded the MEDEX program of training medical corpsmen to become PA's as particularly promising.

With reference to Duke-trained physician's assistants, a recent unpublished study showed that patient acceptance was highest in the better-educated, middle-income group, whereas the lower-income and upper-income groups preferred the physician.[22] Also, the PA survey in a southern Illinois hospital referred to above included a limited evaluation of patient acceptance which indicated no complaints from patients. Indeed, despite introduction of the PA as Mr. . . . , many patients thought the PAs were physicians. On the other hand, a recent survey of a random sample of 253 rural, southern Minnesota and northern Iowa households revealed them to be generally supportive but with some lack of confidence in the training, experience and ability of PA's who were former medical corpsmen. This included reluctance to allow PA's to provide prenatal care and routine deliveries under physician supervision.[23]

Reference already has been made to a controlled study which indicated that nurse associates in a clinic situation provided patient satisfaction. Similarly, another study showed that in individual private practice, group practice and public clinic pediatrics, 76% of parents approved of pediatric trained registered nurses, licensed practical nurses or physician's assistants, providing physicians supervised the care for their infants and children.[24] Also, in a private pediatric practice which utilized a University of Colorado trained pediatric nurse practitioner (PNP), 94% of parents were satisfied with the care provided and 57% stated that joint care was better than that of the pediatrician alone. Home visits by the PNP were viewed with particular favor by parents.[25] Also, in some rural areas, e.g., in Tennessee, Kentucky and Colorado, where health care was not readily available previously, nurse practitioners have had good consumer acceptance.

Considerable anecdotal information about patient acceptance of PA's and nurse associates involved in other programs is available, and more definitive information about patient and public acceptance will result from evaluative studies sponsored by the National Center for Health Services Research and Development and referred to previously.

However, since Medicaid now makes health care available to many people who are familiar with our traditional medical system, such patients may regard being seen by a physician's assistant or a nurse associate as "second-class" medicine. Accordingly, neighborhood health centers have been cautious about using PA's. Also, Medicare and Medicaid will compensate the employing physician for home visits by PA's only if the physician is present to supervise the PA.

General public acceptance of PA's will probably be adversely affected if the affluent population maintains its pattern of direct physician access or if the generalist PA assumes an essentially autonomous practice pattern. Indeed, traditional American emphasis on the one-to-one physician-patient relationship tends toward patients viewing other members of the health care team as interfering with access to the physician. Hence, patient and public acceptance of PA's and nurse associates requires explanation of their roles by the physician, as well as the patient's understanding that the PA or nurse associate is supervised by the physician.

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Missouri Programs and Needs

Missouri involvements with PA's and nurse associates have been mentioned a number of times in this overview. On-the-job training of former military corpsmen as physician's assistants for federal prisons has been concentrated at the Medical Center for Federal Prisoners in Springfield, Mo., since 1968. Also, the results of a questionnaire survey of MSMA members sponsored by the MSMA Ad Hoc Committee to Study Physician's Assistants, are reported here, and a bill providing for Board of Registration for the Healing Arts control of physician's assistants was prepared, but not introduced into the 1972 session of the Missouri legislature. Finally, allied health acceptance and patient acceptance of PA's as revealed by a recent study supported by the Bi-State RMP were discussed.

In addition to the PA program at the Medical Center for Federal Prisoners in Springfield, there are other PA and nurse associate programs in Missouri. Thus, Washington University School of Medicine sponsors a pediatric nurse practitioner educational program of eight-months duration, beginning each September. Applicants must be RNs licensed in Missouri. Washington University has applied for Bi-State RMP support to evaluate the feasibility of employing such practitioners in major settings of health care for children. Beginning in August, 1971, a new PA program was established by St. Louis University and the Cochran VA Hospital in cooperation with Washington University, the Junior College District and Bi-State RMP. This course is two years in length, with the first year devoted to basic science (first semester) and clinical science (second semester) and the second year to clinical training in hospitals and clinics. One RN and seven corpsmen are now taking the course. St. Louis University also offers training for pediatric nurses primarily for the Glennon Hospital Outpatient Department.

Very recently, MEDIHC established an office in Columbia, Mo. to facilitate recruitment of corpsmen. Kansas City, Mo. also is active in this field as evidenced by two projects which became operational in September, 1972 and are funded by Missouri RMP. One of these proposes a pediatric nurse associate program under the auspices of Children's Mercy Hospital and the other, an outreach nurse program to prepare nurses for an alternating role in home care, outpatient clinic and inpatient ward care at Kansas City General Hospital and Medical Center.

With reference to Missouri PA needs, the MSMA Ad Hoc Committee survey of MSMA members conducted by Bi-State RMP revealed a potential demand for more than 800 PA's in the state or many more than are likely to be available in the near future. No figures on needs for nurse associates and specialist physician's assistants in Missouri are available at this time.

At its Dec. 11-12, 1971 meeting, the MSMA Council accepted for filing the following recommendations of the MSMA Commission on Interspecialty Medicine on behalf of its Ad Hoc Committee to Study Physician's Assistants:

1. That a demand for physician's assistants exists among private practitioners of medicine in Missouri and that establishment of training programs is justified.
2. That the MSMA not support attempts to license PA's in Missouri but that PA's be certified and function only under authority of a licensed physician.
3. That mechanisms for deployment of PA's to areas most in need of additional health manpower be devised.
4. That clarification be sought of the position of malpractice underwriters on cost increases for malpractice insurance for physicians employing PA's.

The Council also accepted a resolution encouraging legislation leading to certification of PA's under the Missouri State Board of Registration for the Healing Arts, providing the legislation is compatible with such national certification boards as may be established by the AMA. The Council referred the resolution to the Ad Hoc Committee on Physician's Assistants for study and report back to the Council at its January, 1972 meeting.[2]

Finally, a resolution on physician's assistants was approved by the MSMA House of Delegates at the MSMA Annual Meeting on April 6-9, 1972. The resolution favors the use of primary (generalist) PA's, pediatric nurse assistants and specialist PA's; encourages training programs; and favors legislation placing control of the PA and his employing physician under the Missouri Board of Registration for the Healing Arts.

Future

In future studies and actions regarding PA's and clinical nurse associates, the AMA, in collaboration with other bodies, has indicated its concern with the following issues:

Long range estimates of need for PA's.
Economic viability of the PA concept.

Levels of acceptance of the concept by the patient-consumer, physician-employer, other members of the health team and the PA himself.

Appropriate mechanisms for credentialing of PA's, with an AMA operational certification program scheduled for 1973.

Likewise, the Carnegie Commission on Higher Education also recommended appointment of a National Health Manpower Commission to be charged, among other responsibilities, with making an extensive and authoritative study of physician's assistant programs and their future potential.

In January, 1972, there were an estimated 300 to 500 practicing primary or generalist PA's in the United States. The number of practicing nurse associates is also not definitely known but may well equal that of PA's. Certainly, as more courses are established and enrollment in current programs expands, the numbers of practicing PA's and nurse associates will increase. Indeed, if the PA-demand figures for Missouri are extrapolated to the United States, more than 35,000 PA's could now be utilized by physicians, whereas the Wisconsin physician survey cited above showed a potential need of 2,000 PA's in that state which would extrapolate to more than 100,000 for the United States.

The original intent of PA and nurse associate programs was to increase physician productivity and, hopefully, to facilitate a more even distribution of physicians. Whether availability of physician's assistants and nurse associates will facilitate physician movement into medically-deprived rural and urban areas remains to be seen, particularly since PA's and nurse associates are expected to locate where physicians are. The alternative of a physician's assistant or nurse associate in deprived areas linked to a physician, medical group or medical center by tele-communications, including image transmission, would be progress but not equivalent to direct physician presence. In this vein, the President of the National Medical Association in his 1971 inaugural address stated that the thrust for PA programs should not compromise the thrust for more physicians, dentists and nurses.

The ultimate future of the PA and the nurse associate in the American health care system can be determined only by further study, experimentation and evaluation. In the meantime, health providers, the public, the body politic and other segments of society concerned with health care should continue to provide conditions conducive to later sound decisions regarding PA's and nurse associates.

Summary

1. The physician's assistant concept is not completely new since physicians have utilized various types of health personnel for years and have trained nurses and other personnel to perform tasks which would otherwise be required of the physician.

2. The American Medical Association (AMA), American Academy of Family Physicians (AAFP), American College of Physicians (ACP) and the American Society of Internal Medicine (ASIM) define the physician's assistant (PA) as "a skilled person qualified by academic and clinical training to provide patient services under the supervision and responsibility of a doctor of medicine or osteopathy who is, in turn, responsible for the performance of that assistant. The assistant may be involved with the patients of the physician in any medical setting for which the physician is responsible."

In addition to the (generalist) PA who assists the primary physician, there are specialist PA's in various medical and surgical fields, such as cardiology, gastroenterology, orthopedics and urology, as well as clinical nurse associates in family medicine, pediatrics and other specialty areas.

3. Training programs in the U. S. for these three categories of health personnel now total more than 125 and continue to increase in number and size. In Missouri, there are two PA training programs (Medical Center for Federal Prisoners at Springfield and St. Louis University—Cochran VA Hospital in St. Louis), two nurse associate programs in St. Louis (Washington

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University and St. Louis University), as well as two nurse associate programs (Children's Mercy Hospital and Kansas City General Hospital and Medical Center) in Kansas City.

4. On the basis of a minimal estimated demand for 800 PA's in Missouri recently expressed (through a questionnaire survey) by Missouri State Medical Association members and a demand for 2,000 PA's indicated by Wisconsin physicians, the current demand for PA's in the United States is estimated at from 35,000 to more than 100,000. These estimates may partly include demands for nurse associates and specialist PA's.

5. Since state licensure of PA's at this time risks early rigid definitions and possible undue restrictions, the two-year moratorium on licensing laws for PA's recommended by the American Medical Association and other national medical organizations should be adherred to in Missouri.

6. Missouri legislation providing for certification or approval of PA's under the State Board of Registration for the Healing Arts should be enacted only if the legislation is compatible with such national accreditation standards and certification boards as may be established by the AMA.

7. Occupational guidelines for PA's in Missouri should be in accord with *Occupational Guidelines for the Assistant to the Primary Care Physician* recently prepared by the AMA, AAFP, ACP and ASIM.

8. PA's seeking to practice in Missouri should be graduates of training programs which meet the requirements specified in *Essentials of an Approved Education Program for the Assistant to the Primary Care Physician* recently adopted by the AMA, AAFP, ACP and the ASIM.

9. Evaluation of PA, specialist PA and clinical nurse associate programs should be continued and expanded in Missouri and elsewhere.

10. Further experience with PA's and clinical nurse associates is necessary before a role in health care can be defined for each of these new personnel categories.

11. Commensurate with other priorities, Bi-State RMP and Missouri RMP will continue to consider innovative project proposals for new programs to train and evaluate PA's and clinical nurse associates.

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In Memoriam

Smith, Carl C., M.D., Moberly, a graduate of St. Louis University, 1921; member Chariton-Macon-Monroe-Randolph County Medical Society; age, 82; died July 21, 1972.

Gantt, Ernest S., Jr., M.D., Mexico, a graduate of Washington University, 1945; member Audrain County Medical Society; age, 52; died July 30, 1972.

Carr, G. Thomas, M.D., St. Louis, a graduate of St. Louis University, 1955; member St. Louis County Medical Society; age, 41; died Aug. 6, 1972.

Moore, Carl V., M.D., St. Louis, a graduate of Washington University, 1932; member St. Louis Medical Society; age, 64; died Aug. 13, 1972.

McKnelly, William V., M.D., Jefferson City, a graduate of Creighton University, 1928; member Cole County Medical Society; age, 72; died Aug. 16, 1972.

Waters, E. B., M.D., Defiance, a graduate of St. Louis College of Physicians & Surgeons, 1922; member St. Louis County Medical Society; age, 89; died Aug. 19, 1972.

Merklin, Anton L., M.D., St. Louis, a graduate of Hahnemann Medical College, 1940; member St. Louis Medical Society; age, 59; died Aug. 21, 1972.

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Missouri Medicine in Review

FORTY YEARS AGO

Competition has become a common cry against the government. In many cases, the government has gone into enterprises to remedy evils but not always has the treatment cured the disease. In fact, after the government has undertaken the correction of a malady in the body politic, its usefulness as a healer has too often not only proved futile but even disastrous. Such is the case in the medical care of veterans. Of the cases treated in veterans' hospitals in 1925, 17.24% were nonservice cases. By 1931, the number of nonservice cases treated in veterans' hospitals had grown to 77.9%.—An editorial from *The Journal of the MSMA*, September, 1932.

TWENTY-FIVE YEARS AGO

Mark M. Marks, M.D., Kansas City, reports excellent results in the Treatment of Condyloma Acuminatum with the Use of Podphyllin in Compound Tincture of Benzoin.

William L. Smiley, M.D., St. Louis, discusses Early Postpartum Ambulations as follows: "Surgical literature for the last few years has been replete with reports on the values, both physical and economic, of early ambulation in the immediate postoperative period. A somewhat similar trend has occurred in obstetrics with regard to early ambulation of the postpartum patient. This practice of early rising in the puerperium is not new; it has been advocated by several clinicians in the last 200 years. One finds as early as the late 1700s that White of Manchester, England, states, 'As soon as the patient gets out of bed, the better, and this should not be deferred beyond the second or third day at the furthest.' "

In reporting some clinical experiences in the European Theater of Operations during World War II, William S. Middleton, M.D., said: "Tetanus affords one of the most striking examples of the efficacy of artificially induced immunity. All American soldiers received tetanus toxoid upon induction into the Army. In event of laceration, abdominal surgery or battle wound, a booster dose of toxoid was administered. In the German Army, only the Luftwaffe and paratroops received protective immunization against tetanus. Among the thousands of Americans, there occurred one instance of tetanus in Europe and he died. By contrast, hundreds of wounded German soldiers developed tetanus and scores died."

TEN YEARS AGO

Appointment of the Rev. Edward J. Drummond, S.J., as Vice-President for the Medical Center of St. Louis University has been announced by the Very Rev. Paul C. Reinert, S.J., University president. Father Drummond's appointment became effective on August 15. He will serve as chief representative of the University administration at the St. Louis University Medical Center, including the School of Medicine, the School of Dentistry, the School of Nursing and Health Services and the University-affiliated hospitals. He will coordinate the activities of these schools and act as liaison officer between the president and the board of trustees of the Medical Center.

Dr. Richard J. Dames, instructor in internal medicine at the St. Louis University School of Medicine, has been appointed assistant to the dean for Intern and Resident Affairs. Dr. G. O. Broun, dean of the School of Medicine, said that Doctor Dames' duties would relate to the recruitment and other administrative duties in the Medical Center's internship and residency programs.

The development of the first transistorized electromagnetic blood flowmeter by Dr. Alfred W. Richardson, professor of physiology at the St. Louis University School of Medicine, has been announced by Dean G. O. Broun. A boon to heart surgeons, the new flowmeter is about the size of a house brick and is powered by an amplifier no bigger than an ordinary pack of matches. The newer model has the smallest amplifier circuit ever produced for this purpose.

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Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

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*Levine, S.: "Angina Pectoris and Emotional Overlay," Scientific Exhibit presented at the Annual Meeting of the Maine Medical Association, Kennebunkport, Me., June 13-15, 1971.

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MSMA NEWS ROUND-UP

November, 1972

Missouri physicians' views coincide closely with national trend in AMA Opinion Survey

Results of the 1972 Opinion Survey of the AMA Membership show that the views of Missouri physicians on national issues coincide closely with the views of physicians nationwide.

The following report was prepared specifically for Missouri. Respondents from Missouri numbered 1,891 and comprised 2 per cent of the total 94,035 respondents nationwide.

Question VII, not included below because of length, asked respondents which areas AMA needs to emphasize. More than 63 per cent of the Missouri respondents said the AMA should improve its communications with the public; 38.9 per cent said more emphasis is needed on practice management problems; 34.4 wanted more information of socioeconomic issues; and 33.7 per cent said the AMA should stress communication to the medical profession.

The questions and their responses were:

QUESTION I

Which one *of the following comes closest to the policy position you would like the AMA to maintain as* your representative *on the national scene in Washington?*

	MO.	TOTAL U.S.
a. Seek to retain as many as possible of the basic principles of private practice (freedom of choice, fee-for-service, voluntarism, etc.) in any governmental health program that would be adopted	73.6%	73.1%
b. Resist any form of government health plan except that limited to medical and related care for the poor	16.1%	16.4%
c. I have not decided, or do not wish to state a position at this time	2.9%	3.3%
d. Other Responses	7.4%	7.2%

(Continued on Next Page)

Mortenson is named Field Rep.

Lee E. Mortenson has been named the AMA Field Service Representative for Missouri. He replaces Timothy B. Norbeck, who has joined the AMA's headquarters staff.

Mortenson, who is based at the AMA's home office in Chicago, received his B.A. degree in history/political science from Elmhurst College in 1971 and gained his Master's degree in advertising/marketing from Northwestern University in June, 1972.

Prior to joining the AMA, Mortenson was involved in free-lance advertising, public relations, consulting and research for candidates in Illinois elections.

He was president of American Political Consultants, an advertising firm for candidates, from October 1969 to February 1971.

Mortenson, whose territory also includes Illinois and Indiana, can be contacted at the home office, 535 N. Dearborn St., Chicago, Ill., 60610.

Fee information available

Physicians seeking information on fee regulations under Phase I of the economic stabilization program can contact Robert Walsh at the AMA Center for Health Services Research and Development. The telephone number is 312-527-1500, extension 434. After closing hours, incoming calls are recorded for follow-up messages.

QUESTION II

There are numerous proposals before Congress for national health insurance. ASSUMING that one *or* a combination of these *might be enacted into law, which of the following* concepts *would you prefer?*

	MO.	TOTAL U.S.
a. A plan in which the federal government, under contracts with physicians and institutional and other providers would administer and pay for most of the nation's medical care	3.9%	4.8%
b. A plan in which federal funds would be used to pay for care of the poor; and, in which employers would be required to purchase qualified health insurance policies and plan for their employees and their families and pay most of the premium	7.3%	9.2%
c. A plan in which the individual purchases a qualified health insurance policy or plan for himself and his family, and the federal government contributes full payment of premium for the poor, and for other income groups a partial payment related to the family's taxable income (with the federal contribution decreasing as the taxable income increases)	56.9%	55.7%
d. A plan in which the federal government would provide financial assistance to cover only the catastrophic costs of illnesses	16.0%	14.1%
e. None of the above	4.9%	5.3%
f. I have not decided, or do not wish to state a position at this time	4.3%	4.3%
g. Other Responses	6.7%	6.6%

BALTIMORE

QUESTION III

Of the following non-institutional non-governmental *arrangements, which would you prefer:*

	MO.	TOTAL U.S.
a. Fee-for-service (**without** prepaid capitation)?	70.7%	66.6%
b. Contract practice (prepaid capitation system) in which you are reimbursed on a **fee-for-service** basis?	17.4%	21.0%
c. Contract practice (prepaid capitation system) in which you are reimbursed according to a **negotiated formula** (e.g., base salary plus percentage)?	5.9%	6.2%
d. Contract practice (prepaid capitation system) in which you are reimbursed on a **salary** basis?	2.1%	2.5%
e. Other Responses	4.1%	3.8%

QUESTION IV

If a compulsory *nationalized health service were adopted by Congress in the near future, which of the following courses of action would you choose? (Please check the* one choice *which most nearly describes what you think you would do.)*

	MO.	TOTAL U.S.
a. Join the federal program and continue to practice in it . .	24.6%	24.6%
b. Seek an administrative post in the federal program	1.2%	1.6%
c. Continue to practice in my specialty under the federal program, but would switch to a university, hospital, industrial setting, or clinic center	12.6%	11.7%
d. Continue my private practice with those patients who would pay my private fees, whether or not the patient pays an additional mandatory federal premium	27.0%	28.1%
e. Leave the practice of medicine	7.7%	7.6%
f. I have not decided, or do not wish to state a position at this time	21.9%	21.6%
g. Other Responses	5.0%	4.7%

QUESTION V

Do you think the current situation regarding professional liability (malpractice insurance and litigation) causes you *to order:*

	Yes	No	Undecided	Other Responses
a. **extra lab tests, x-rays and other diagnostic procedures?**				
Missouri	68.9%	24.9%	2.1%	4.2%
Total U.S.	70.7%	23.1%	2.3%	3.9%

(Continued on Next Page)

b. **extra consultations?**				
Missouri	54.2%	36.1%	2.9%	6.9%
Total U.S.	59.3%	31.2%	2.9%	6.6%
c. **extra hospitalization?**				
Missouri	44.5%	43.3%	4.0%	8.2%
Total U.S.	44.5%	42.8%	4.4%	8.5%

QUESTION VI

In your opinion is there a serious shortage in YOUR immediate *location of practice of:*

	Yes	No	Do Not Know	Other Responses
a. physicians?				
Missouri	25.1%	67.6%	3.8%	3.6%
Total U.S.	25.3%	69.0%	2.9%	2.8%
b. **specialists** in YOUR specialty?				
Missouri	21.0%	69.0%	2.4%	7.6%
Total U.S.	17.1%	72.8%	2.3%	7.9%
c. **residency positions** teaching hospitals in YOUR specialty?				
Missouri	12.1%	44.1%	17.1%	26.8%
Total U.S.	14.9%	60.8%	12.0%	12.4%

Public Affairs Conference scheduled in February, 1973

The annual MSMA Public Affairs Conference has been scheduled for Feb. 3-4, 1973, at Ramada Inn in Jefferson City.

Hubert A. Ritter, M.D., St. Louis, has been named chairman of the Conference Committee.

The Public Affairs Conference is the successor to the County Society Officers' Conference and is designed to inform Missouri physicians about the many problems and issues facing medicine today.

All members of the Missouri State Medical Association are invited to take part in the Conference. Special invitations are sent to officers of all county medical societies in Missouri.

The Conference Committee is currently lining up state and national speakers and further details of the program will be published when arrangements are completed.

Media nominations open

Nominations are now open for the Missouri State Medical Association's 1972 Journalism Awards. The awards recognize outstanding journalism that gives the public a better understanding of medicine and health. Awards are presented to a newspaper, radio station and television station. Contest material will be mailed to all media in Missouri. Also, physicians with knowledge of a meritorious media effort should notify MSMA Headquarters for follow-up.

What is one vote worth?

It CAN mean an election!

What is one vote worth?

Well, in 1970, one vote was worth a seat in the Missouri House of Representatives for Rep. Guss Salley. Out of a total of 9,637 votes cast in the 116th District, Rep. Salley collected 4,819 while his challenger, Morran D. Harris, received 4,818 votes.

In the same year, another House race was decided by 18 votes and two other races by less than 100 ballots.

More than 44,000 voters cast ballots in one Missouri State Senate race, and yet, the winner and loser were separated by only 348 votes.

Richard M. Nixon, in 1968, captured Missouri's electoral votes with a 20,488 plurality over Hubert H. Humphrey. However, that spread represented only a shade more than one per cent of the state's 1,809,502 total vote.

What will be forthcoming next week? It's impossible to forecast, but here are some interesting election facts:

- *Nearly two million Missourians will go to the polls Nov. 7.*
- *In the August primary election, 1,004,282 Missourians cast ballots in the governor race. Of this total, 649,893 voted for one of ten Democrat candidates and 354,389 voted for one of seven Republican candidates.*
- *Nationwide, approximately 86 million Americans will go to the polls. This represents 62 per cent of the nation's 135 million eligible voters.*
- *Women comprise 52 per cent of the electorate.*
- *Cities and suburbs contain 73.5 per cent of the eligible voters in the U.S. while the remaining 26.5 per cent live in rural areas.*
- *Age wise, here's how the electorate shapes up:*
  - *18 to 20 years old (8 per cent);*
  - *21 to 24 years old (11 per cent);*
  - *25 to 39 years old (27 per cent);*
  - *40 to 65 years old (40 per cent);*
  - *over 65 years old (14 per cent).*
- *YOUR vote DOES count!*

PSRO, chiropractic sections approved

Several changes in the government's biggest medical programs - Medicare and Medicaid - were approved last week with passage of House Resolution No. 1 by the 92nd Congress.

Provisions in HR 1 affecting the medical profession include a modified Professional Standards Review Organization (PSRO) system for Medicare-Medicaid; inclusion of Social Security disabled beneficiaries under Medicare; a limited chiropractic benefit; a contract pracice-health maintenance organization (HMO) opion for Medicare beneficiaries; and tying physicians' Medicare fee raises to a cost-of-living-type index.

Following Senate passage of the two-year-old, catch-all Social Security bill, House-Senate conferees worked out a drastic compromise under which most of the Senate's liberalizing amendments were chopped to bring the Senate bill's $18-billion cost to $6 billion. All major welfare changes were dropped. Many Social Security liberalizations were rejected.

In the health area, the conferees knocked out a $900-million plan to add drugs as an outpatient Medicare benefit and turned down a Senate plan to install an inspector general over Medicare and Medicaid at the HEW Dept.

Both the controversial PSRO and chiropractic sections added by the Senate were toned down in conference.

Under the peer review plan, the work of Sen. Wallace Bennett (R., Utah) and members of the Senate Finance Committee staff, local medical societies will have the opportunity to establish peer review mechanisms, operating independently, to look over the operations of hospitals and nursing homes in their handling of Medicare and Medicaid patients.

The provision is worded to make review of institutions first priority, with review of outpatient private care not necessary or even encouraged until 1976.

Task of the PSRO is to "assure proper utilization of care and services . . . utilizing a formal professional mechanism representing the broadest possible cross-section of practicing physicians in an area."

The HEW Dept. could reach agreement only "with a qualified organization which represents a substantial proportion of the physicians in the geographical area . . ." If this isn't achieved by 1976, HEW could turn to some other group to establish the PSRO.

A PSRO would be required to review only institutional care and services through 1975 unless it chooses - with approval of the government - to broaden the scope to include private practice.

During the pre-1976 period, 10% or more of the practicing physicians in an area could demand a poll of all practicing physicians to determine whether the organization negotiating to set up a PSRO substantially represents the physicians of the area. A plus-50% "no" vote would break off the negotiations.

From now until the end of next year, the HEW Dept. is ordered to establish PSRO areas around the country (300 or more physicians). In some cases, it is believed that entire smaller states will be designated as PSRO areas.

PSROs will have nothing to do with fees. They are assigned the task of setting norms or standards of practice for the area and enforcing them through the power of withholding federal reimbursement.

The American Medical Association had urged that local or state medical societies be designated specifically as the peer review organization. The House bill provided only for experiments by HEW on various peer review plans, but this was killed in conference.

Inclusion of chiropractic benefits for the first time in a federal health program was a setback to the medical profession and the Administration, but the conferees hedged the benefit by restrictions that may make it practically unworkable.

The chiropractic benefit is limited to "manual manipulation of the spine." An x-ray revealing "subluxation" of the spine is a condition for treatment. The x-ray cost will not be paid by Medicare. Nor, apparently, will chiropractors be allowed to interpret the x-rays. The PSROs, which will be composed entirely of physicians, will have the overall power to review any use of chiropractors in the locality.

Left intact by Congress is a limitation on physicians' prevailing charge levels under Medicare. Recognized as reasonable are only those charges which fall within the 75th percentile (a charge that covers 75% of the existing case charges for a procedure or treatment in an area excluding the top 25% of charges), a step that Social Security already has carried out administratively. Starting next year, under the bill, future charge increases would be limited by a factor which takes into account increased costs of practice and the increase in earning levels in an area.

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All material other than scientific should be received prior to the first of the month preceding month of publication.

Please give notice of change of address at least one month in advance of the change, giving old and new addresses.

H. M. HARDWICKE, M.D. *and* **WARREN P. SIGHTS, M.D.,** ***Columbia***

Missouri's Chronic Kidney Disease Program

Special Article

It is quite clear that patients with end-stage kidney disease face death from uremia if hemodialysis is not made available to them. It is unfortunate that until recently there have been too few hemodialysis or kidney transplant programs available in the state of Missouri. Such programs which did exist found that the demands for their services were far in excess of their resources.

The Missouri State Legislature appropriated $100,000 for research in the treatment of chronic kidney disease in the state of Missouri. This appropriation was made in 1968 and was for the fiscal year 1968-1969. The Legislature specified that the monies were appropriated to the curators of the University of Missouri for use by the Missouri Regional Medical Program. It was quite clear that the intent of the Legislature was that the appropriated funds be used for the benefit of patients and that administrative costs be held to a minimum. It also was clear that any monies appropriated for research should be used solely for the purpose of reducing the cost of maintaining end-state kidney disease patients.

The Advisory Council of the Missouri Regional Medical Program directed that methods used in other states and territories for the expenditure of comparable tax funds be evaluated. It was found that in most states with funds available for the purpose, a fixed sum is paid for each dialysis. The fixed sum is paid to the treating hospital. Although this is a direct approach, it does contain certain inherent difficulties. The procedure entailed a considerable administrative cost. More importantly, it removed incentives which otherwise might have been present to reduce the cost of each treatment.

The Advisory Council determined, after exploring various possible methods of financing, to allocate the funds appropriated by the Legislature on a grant basis to those institutions in the state whose project application proved acceptable to the Advisory Council. In other words, the Council was of the opinion that a mechanism similar to the one used to distribute allocated federal funds by the Regional Medical Programs Service Agency was to be developed in Missouri. Members of the Advisory Council felt that this technique would promote greater efficiency of operation and the mobilization of all available economic resources by the institution and the patients concerned. Fortunately, this assumption proved to be correct. During the years the program has been in operation, state-appropriated funds have proved to stimulate the full use of institutional and personal resources rather than to promote dependence upon appropriated funds.

Once the mechanism for distributing the available state funds had been developed, interested institutions in Missouri were requested to submit project proposals for review. Five proposals were received early in 1968.

Nationally-known nephrologists from outside the Missouri region were asked to accompany members of the Advisory Council on site visits to each of the applicant institutions. Dr. Satoru Nakamoto of the Cleveland Clinic in Cleveland, Ohio and Dr. Belding Scribner of the University of Washington in Seattle accepted the invitation and "site visited" the institutions with members of the Advisory Council.

A review of the proposals submitted made it self-evident that available state funds fell far short of the demonstrated need for hemodialysis. The existing disparity between the need and the funds available made the establishment of priorities essential. First priority was given to those institutions which were then operating hemodialysis programs and which needed only a relatively small amount of additional funds in order to extend their services to more needy people. The second priority required that the amount of matching funds available from the applicant institutions would be given due consideration. The third established priority required that cost effectiveness be demonstrated by the applicant institution. It was required that the cost-per-patient treatment bear a favorable relationship to the national average cost. It also was determined that geographic location and accessibility to large patient populations be favorable. On a basis of these and other priority considerations, grants were awarded that first year to Barnes Hospital of Washington University in St. Louis and to the Chronic Dialysis and Transplant Center, Incorporated, located at the Kansas City General Hospital in Kansas City. An added favorable factor in causing the Advisory Council to select these two institutions was their determination to train patients and families that home dialysis might be substituted for center dialysis as soon as possible.

Members of the Legislature visited the two programs which were partially funded during the first year. They came to understand that not only was the program badly needed in Missouri, but that once patients were treated by one of the programs, their very lives were dependent upon continuing treatment. The Legislature seemed to understand that in order to take on new patients, more money would be required in succeeding years. The only way that a steady state system could be achieved with equal benefit to all patients was to prepare each for transplant or to substantially reduce the cost of treatment.

During the fiscal year 1969-1970, the Legislature appropriated $200,000 and for 1970-1971 the same amount of money. This increase in appropriation allowed the Advisory Council to fund applications submitted by St. Louis University in St. Louis, by St. Luke's Hospital in Kansas City and by the University of Missouri School of Medicine in Columbia. Since each of these institutions also added matching funds, doubling the appropriated funds had the effect of tripling the number of patients treated.

The Legislature appears satisfied with the program. The appropriations bill as passed by the Legislature for the fiscal year 1971-1972 increases the grant to $400,000. This amount of money will permit an increase of service to uremic patients by all funded institutions and, in addition, will permit the development of hemodialysis services at Burge Hospital in Springfield.

Since 1968, it has become increasingly apparent that a meaningful and current registry of all patients needing hemodialysis is required. A very small percentage of the $400,000 appropriated for 1971-1972 will be used for this purpose.

In all funding institutions, home dialysis is utilized wherever possible. It has been the experience in Missouri that approximately a year is required to train the patient and his family in order that an ongoing home dialysis program might be developed for him. The cost of home dialysis averages about $5,000 per year. This figure compares most favorably to the national average of $20,000 per year for each patient on center dialysis. The program during the fiscal year 1970-1971 cared for 52 patients, which represents a cost of $3,800 per year per patient, including training, cost of equipment and supplies.

The authors describe Missouri's Chronic Kidney Disease Program which was initiated by action of Missouri's Legislature in 1967, the methods established for the distribution of appropriated funds and the methods by which physicians care for their patients. Doctor Hardwicke is Associate Director, Office of Operations, Missouri Regional Medical Program and Associate Professor in the Department of Physical Medicine and Rehabilitation, University of Missouri. Doctor Sights is Director of Operations, Missouri Regional Medical Program and Associate Professor of Neurosurgery, University of Missouri Medical Center.

Certain spin-off benefits have been apparent during the life of this program. It has made possible the teaching of medical students, residents and staff members and attending physicians. This has the beneficial end result of increasing basic knowledge about kidney disease by many people who will be involved in care of renal problems.

The technique of utilizing project requests and, in effect, making state dollars facilitating dollars promotes sincere efforts on the part of the recipients of grants to provide as many matching funds as possible and to encourage patients to support their own treatment as far as possible. This has had the effect of putting pressure upon third-party payers to recognize the need for appropriate coverage for hemodialysis and, possibly, for transplant in policies which they issue.

There has been a strict adherence to patient qualification as established by the Massachusetts study and supported by Doctor Nakamoto and Doctor Scribner. It is imperative that the patient have no other major disabling disease, that he preferably be between the ages of 15 and 45 and that he receive certification from his referring physician that should his uremia be successfully brought under control, he would be able to return to useful activity.

It is of importance to the record to report that the University of Missouri Board of Curators has submitted no charge for the fiscal management of the appropriated state funds. It also is important that the record reflect that no charge has been made by Missouri Regional Medical Program for the services of its staff in the structuring, development and management of the total program.

Missouri Regional Medical Program, which is operative in all of the state except the St. Louis area; the Bi-State Regional Medical Program, which is operative in the St. Louis area; and the Kansas Regional Medical Program are currently working on the development of a multiregional program for kidney disease. When this program is perfected, it will be submitted to Regional Medical Program Services with the hope that federal funds be made available for its implementation. The multiregional program emphasizes training of personnel with a maximizing of scarce resources. It will include such things as tissue typing facilities, the development of registries to insure that available kidneys and potential recipients be brought together as rapidly as possible and that an intercommunication net designed for the benefit of the needy patient be developed among all the institutions offering hemodialysis or transplantation in the three areas cooperating.

It is important to point out that federal funds obtained under this new proposal, if any, will not be permitted to be used for direct patient care. It may be used only for supportive services. Money appropriated by the state of Missouri or the state of Kansas is and should be entirely used for direct care of residents of these two states.

Physicians practicing in the state who wish to avail themselves of the services of a nephrologist in order that, when indicated, hemodialysis is available to their own patients, have only to call any of the centers mentioned in this article, asking for the physician in charge of the kidney disease treatment center and discussing their problem with him. It is understood that all patients who are uremic cannot and possibly should not have hemodialysis or transplantation available to them, but those who meet the criteria of acceptability and retain the potential for complete rehabilitation and productivity should be evaluated for possible dialysis or transplantation.

The Legislature of the state of Missouri is to be commended for having recognized the existence of persons within the state who suffer from end-stage kidney disease and who are facing death from uremia if hemodialysis is not made available to them. Not only did the members of the Legislature recognize this fact and take steps to initiate services for these people, but it has also accepted the responsibility for the continuance of the program with increasing grants each year. We all sincerely hope that a steady state system will be achieved within the foreseeable future.

Addendum: Recognizing the ongoing nature of end-stage kidney disease in Missouri, the Missouri State Legislature increased its appropriation to $600,000 for fiscal year 1972-1973.

Dr. Gilbert Kelley Receives Letter from President Nixon

The Savannah (Mo.) Reporter reports that Dr. Gilbert B. Kelley found a letter on his desk recently. He thought it might be an advertisement, until he noticed that the return address was simply "White House." He was surprised to discover that the letter was from President Nixon, who sent his congratulations after reading a news story in *The Reporter* about Doctor Kelley and his six sons achieving the rank of Eagle Scout. The text of the letter was as follows:

"Dear Dr. Kelley: It was indeed my pleasure to read recently a news story describing the outstanding accomplishments of you and your six sons. The record of each of you attaining the rank of Eagle Scout is most impressive, and I welcome this opportunity to congratulate you all, not only for this splendid distinction but also for the extraordinary qualities of character which you have given to your sons. With warm good wishes to each of your fine family. Sincerely, *Richard Nixon.*"

Singing Doctors Release New Album; Goal Is to 'Keep 'Em in Stitches'

After four earlier record albums of "medical hit parade" humor, the Singing Doctors from Springfield are up to their old tricks. This time, they seek to "Keep You in Stitches," to quote the title of their soon-to-be-released stereo effort.

Six "medical minstrels," the group's previous albums have featured the unlikely likes of "Halitosis Beats No Breath At All," "(The Pause That Refreshes Is) The Menopause" and "Stalling, the Art of Medicine." The fifth album is by far the funniest, declares surgeon Jim Brown, the Singing Doctors' organizer-leader-lyricist and on-stage master of ceremonies.

Included in the new album's 15 "hits," recently recorded before an audience of 1,000 nurses and scheduled to be available starting October 1, are such songs as "The Best Things in Life Are Fees," "Tumors and Rumors," a timely tune Brown has titled simply "Vasectomy," plus a deeply felt melody, a special physicians' "Tribute (?) to the Internal Revenue Service."

All proceeds from album sales will continue to go toward scholarship grants to deserving young medical students. More than 150 youthful doctors-to-be have been aided to date. If the new "Keep You in Stitches" album sells as spiritedly as is hoped by the Singing Doctors' patron organization, the Greene County Medical Society, dozens more aspiring young men and women can be financially assisted in pursuing their medical educations.

Four of the Singing Doctors—James Brown, Don F. Gose, F. T. H'Doubler, Jr. and Charles E. Lockhart—are surgeons in the Missouri Ozarks. Dr. Hal H. Lurie is an internist, while Dr. Fred C. Coller is a pathologist. (Waiting patiently "in the wings," should any of the regular cast members be unable to fulfill an engagement, is Dr. Jim R. Cook, anesthesiologist, one of the initial recipients of a Singing Doctors grant.) Their accompanist from the outset has been Wilfred "Wimpy" Adler, professor of music at Southwest Missouri State University, Springfield.

"Our songs," explains Doctor Brown, who helped finance his own education as a writer of both songs and jokes for Nashville country

The Singing Doctors have as much fun as the people they entertain. Their new album of 15 "medical hits" was recorded before an audience of 1,000 nurses. *(Left to right)* Drs. Don F. Gose, Fred C. Coller and Harold H. Lurie.

The engaging personality of surgeon Dr. Jim Brown is perhaps the "Singing Doctors'" greatest asset. He serves as "front man" for the unique group on both their record albums and in many personal appearances at medically related conventions. Also, he is composer of the majority of their humorous songs. Doctor Brown helped finance his own education as a writer of both songs and jokes for Nashville country music shows. Now the scholarship foundation he originated has provided tuition money for more than 150 deserving young doctors-to-be.

music shows, "never make sport of the patient or of an ailment. We dwell solely upon ribbing our own profession for its frailities. . . .

"Even the most casual observer," he adds, "would surely agree that we're a long, long way from running short of subject matter for writing new songs."

Do the Singing Doctors enjoy their role as performers? The answer, obviously, is why else would they give up as much as a full month per year of their lucrative individual practices—entirely uncompensated except for travel expenses—to entertain at conventions of healing arts organizations throughout the nation. Doctor Brown specifies, "Our only demand of any group wanting us to take our show to their meeting 15 or 1,500 miles from here is that we'll bring back home pocketsful of album orders to help swell up the scholarship fund."

How to Order

The new "Keep You in Stitches" album (the previous four albums are now out-of-print collectors' items) is available at $5.95 per copy, postpaid, from the Singing Doctors' Student Foundation, 208 Professional Building, Springfield, Mo. 65806. Two copies—especially for those who might be looking ahead to Christmas giving—are to be had at the discount price of $10.95.

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WASHINGTON

The American Medical Association supported a two-year extension of the federal National Health Service Corps program under which Public Health Service personnel are assigned to areas with critical health manpower shortages.

Richard E. Palmer, M.D., a member of the AMA Board of Trustees, told the House Health Subcommittee that the Association believed that the NHSC program, which got underway 18 months ago, was having "an auspicious beginning" and promised "to help alleviate the maldistribution of health personnel affecting shortage areas." He said, "Its capabilities for bringing needed services into shortage areas are yet to be fully demonstrated."

"Additional experience will permit a fuller evaluation of the program's potential," Doctor Palmer said. "In supporting the NHSC, however, we believe it is essential that incentives now contained in the program are retained so that we may hopefully achieve our overall objective of meeting community needs on a long-term, continuing basis."

The AMA spokesman objected strenuously to a proposed deletion of a requirement for certification by state and district health societies that such health personnel are needed before assignment to a particular area.

. . . Much of the . . . planning to date has been centered around community participation in the NHSC program to further encourage the Corps physicians, dentists and other professionals to feel they are part of the community life," Doctor Palmer said. "We urge this committee not to take any action now which would block communities and professionals from attaining this goal.

"Certification by the physician's or dentist's peers—the local members of his own profession—that his services are needed, together with concurrence by local government, provides the strong and necessary base of community acceptance and participation in his assignment. Removing this base could erect barriers and prevent the level of contact and rapport with peers which are significant factors in stimulating the professional man to establish professional roots in a community.

"Furthermore, the record of cooperation by the medical profession at the local, state and national levels speaks against the proposed amendment deleting the certification provision. The AMA has worked closely with the NHSC to help make the NHSC a reality.

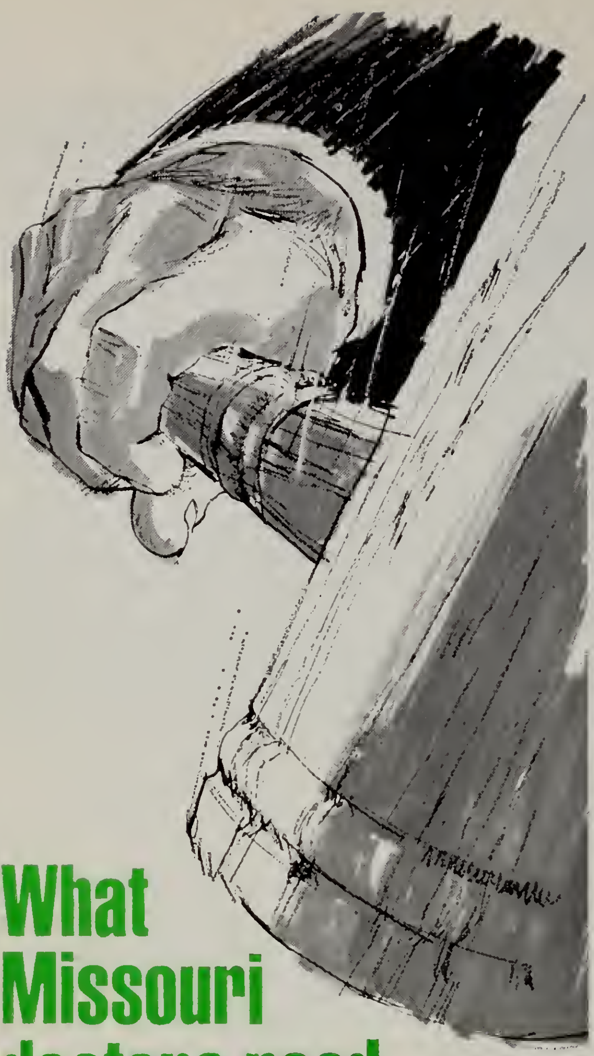
". . . At the Corps' request, the AMA has also distributed to all state medical associations and county medical societies brochures on the program, together with lists of NHSC personnel in central and regional offices to be contacted, requesting assistance in identifying areas particularly short of health manpower. All of these activities, and others, have been undertaken to inform state and local medical societies of the program's interest, method of operation and goals.

"Most recently the Association has contracted with the Corps for the AMA to recruit physicians to serve in areas of need on a short-term basis. This undertaking, which we call 'Project U.S.A.,' will be a valuable adjunct to the Corps in its operational phases of its program.

"In short . . . the AMA has actively provided assistance in the implementation of the NHSC. The medical profession shares . . . with government and with communities the common goal of getting needed medical services into shortage areas.

"Even more directly than our activities at the national level, we believe that the measure of success to date of this new program can be attributed to the cooperation received at the local level from the various medical communities. It should be kept in mind that the great number of assignments of physician personnel made in this program to date have been possible *because* the local and state societies have certified to the need for such health personnel. As a fact, in some instances, the medical society has been a moving party in seeking assignment of personnel under this program.

". . . we believe that the foregoing is strong evidence that the active participation of organized medicine is to the advantage and not to the detriment of the program. We must assert strongly that we are opposed to the deletion of the present certification requirements in the law. The record of cooperation warrants continuing these requirements. The absence of such re-



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quirements could defeat the goal we all share."

The AMA also recommended the following:

—Continuation of a provision giving the Secretary of Health, Education and Welfare latitude as to the use of PHS facilities, rather than requiring their use as proposed.

—Against providing additional medical training scholarship arrangements in connection with the program.

° ° °

A report of the National Cancer Institute indicates a substantial betterment in patient survival in some forms of the disease.

The fourth annual "End Results in Cancer" was prepared by the Institute-sponsored End Results Group. It summarizes the survival experience of white patients diagnosed with cancer from 1940 through 1969 in more than 100 United States hospitals. Similar information on black Americans is currently being collected and analyzed for future publication. The data cover 52 anatomical sites of cancer, treated by surgery, radiation and chemotherapy. Varying survival rates up to 15 years are given for each form of cancer.

The report indicates several cancer sites for which there is marked improvement in patient survival. The three-year survival rates for patients whose cancers were diagnosed from 1965-1969 show an increase over the rates of those diagnosed from 1940-1949 for the following:

Types of Cancer	*3-Year Survival 1940-1949*	*3-Year Survival 1965-1969*
Bladder	48%	62%
Brain	28	37
Chronic lymphocytic leukemia	33	53
Larynx	47	67
Melanoma of the skin	49	74
Multiple myeloma	10	27
Prostate	49	66
Thyroid	67	86

Other findings in the report are as follows:

Other cancers for which there have been important increases in patient survival since the 1940's are childhood leukemia, Hodgkin's disease and breast cancer. The one-year survival rate for children under 15 with leukemia indicates continuing progress and provides hope for further improvement. The rate has increased from 36% in 1955-1964 to 59% in 1965-1969. Among children with acute lymphocytic leukemia diagnosed in 1965-1969, the one-year survival rate was 67%. Due to greatly improved methods of chemotherapy, radiation techniques and life support systems, the three-year survival rate for children has increased from less than 6% to

15% over the past ten years. This represents the results achieved in a broad cross-section of hospitals.

Similar progress also has been noted in the treatment of patients with Hodgkin's disease. Twenty years ago, only 35% of Hodgkin's disease patients survived three years; among patients diagnosed in 1965-1969, 61% survived three years.

The outlook also has improved for women with breast cancer. For all stages of breast cancer, the three-year survival rate has increased from 63% 20 years ago to 72% in the most recent time period. Of patients with localized disease diagnosed during 1965-1969, 91% were alive three years after diagnosis.

However, there has been little or no improvement in life expectancy for patients with lung cancer and cancer of the pancreas. Lung cancer is the most common male cancer with 62,000 new cases and 56,000 deaths annually among U. S. men, and incidence is still increasing. There has been little change since the 1940's in the proportion of cases classified as localized at diagnosis—only 18% in 1965-1969. However, treatment results for localized forms of the disease have improved. For all lung cancers, the three-year survival rate is only 11%; for localized disease, the three-year rate has increased from 17% in the 1940's to 39% in 1965-1969.

Survival rates for patients with cancer of the pancreas have shown no improvement over the past 20 years. During this time interval incidence has risen from seven cases per 100,000 persons to nine per 100,000. An estimated 19,000 new cases are diagnosed each year in the United States. More than 90% of these patients die within one year. The three-year survival rate of the 1940's, 2%, for all stages of this disease has not improved in recent times. Even when detected in the early stages, the three-year survival rate is still only 4%.

Most cancers are diagnosed after middle age. Seventy-five percent of all cancers among U. S. men and 63% of cancers in women are diagnosed at age 55 or over. Generally, the outlook for survival decreases with age. For cancer patients 15 years and under, however, life expectancy is as low as for patients 65 years of age or older.

Women survive longer after cancer diagnosis than men. For example, only 31% of men with cancer survive five years or longer while 42% of women patients live ten years or more. This pattern holds true for localized as well as for all stages of cancer and for each age group.

The marked survival advantage of female patients is due in part to the fact that for the major cancers in women (breast, colon, uterine cervix and uterine corpus), survival is more favorable than for those occurring most frequently in men (lungs, prostate, colon and bladder). In addition, for most cancer sites common to men and women, survival rates are higher for women.

Surgery is the most-used form of treatment. During the ten-year period of 1955-1964, 55% of all patients were treated by surgery, 29% by radiation and 18% by chemotherapy. Although surgery has remained the treatment of choice in recent years, more patients are receiving radiotherapy (34%) and chemotherapy (22%).

Early detection, while the cancer is localized or limited to the organ of origin, offers the best opportunity for control. There has been an encouraging increase in the proportion of cancers of the breast, prostate, bladder and brain and melanoma of the skin being diagnosed while localized. The percentage of breast cancers localized at diagnosis has increased from 38% to 47% in the past 20 years; for prostatic cancer, the percentage localized has increased from 49% to 63% in the same time period.

Women with cancers of the cervix and body of the uterus have a good outlook for survival, particularly when their cancers are diagnosed while localized. The three-year survival rates for women with early disease are 82% for cervix and 88% for the body of the uterus. For all stages, long-term survivals also are encouraging, with ten-year survival rates of 55% for women with cervical cancer and 69% for patients with cancer of the body of the uterus.

"It needs a rest."

medical melange

Notes of interest from Here . . . . and There

At the annual meeting of the **Friends of Arrow Rock** on September 24, **Dr. Thomas B. Hall** and his son, **Dr. Thomas B. Hall III,** were appointed chairman and co-chairman for the erection of a Dr. John Sappington Building in Arrow Rock to contain as its theme, "Malaria vs Mankind." Doctor Sappington, as the earliest and most influential protagonist of quinine in America, will be fitted into this context. Doctor Hall wrote the book, "Medicine on the Santa Fe Trail," which was reviewed in the February, 1972 issue of MISSOURI MEDICINE. He reports that approximately 280 copies have been sold and only 20 to 25 copies are still available. The funds received from the book will serve as a nucleus fund for this project.

Dr. Richard A. Guthrie of Columbia has been elected to the Board of Directors of the American Diabetes Asociation. The Board is the governing body of the Association and consists of 25 physicians and 25 laymen from all over the United States. Doctor Guthrie is associate professor in the Department of Pediatrics, University of Missouri School of Medicine.

Dr. William C. Allen, Columbia, was elected president of the Missouri Diabetes Association at its annual meeting on September 10 in Columbia. Doctor Allen is associate coordinator of the Missouri Regional Medical Program and associate professor of community health and medical practice at the University of Missouri. Other officers are **Dr. Paul Bettenville,** St. Louis, vice-president; **Mrs. Salley Ehrhardt,** Mexico, secretary; and **Dr. Richard A. Guthrie,** Columbia, treasurer.

Eighty-two members of Sedalia's medical community, officials of Bothwell Hospital and friends paid tribute to **Dr. J. W. Boger** in celebration of his 50 years in medical practice. Doctor Boger's nephew, **the Rev. Dr. John L. Moad** of Independence, delivered the major address of the evening, praising his uncle's faithful and generous service to Pettis Countians.

Plaques denoting appreciation of three doctors were awarded at the Blue Springs Ministerial Alliance's teachers and professionals appreciation dinner at the R-4 Junior High School in September. The banquet, which is held annually to honor the personnel of the R-4 school district, was expanded this year to cite the work of doctors. Plaques were presented to **Merill Bay,** M.D.; **C. G. Leitch,** M.D. and **Mrs. Rowena Via,** who accepted a plaque in memory of her late husband, **James Via,** D.O. **Dr. Harry S. Jones** of Independence gave the keynote address in which he drew parallels between the teaching and medical professions.

Dr. Claude J. Allen of Rich Hill celebrated his 86th birthday anniversary on September 2 at his home. Doctor Allen's retirement from active practice four years ago completed almost 100 years in which a Doctor Allen has practiced medicine in Rich Hill. His son is **Dr. William H. Allen III** of Nevada.

Dr. Bartley Frueh of Columbia was elected secretary of the American Society of Ophthalmic Plastic and Reconstructive Surgery at a recent meeting in Dallas, Tex. Doctor Frueh is in private practice and also teaches at the University of Missouri Medical Center.

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E. L. LICHTI, Ph.D., K. LAMBERT, M.D. *and*
C. H. ALMOND, M.D., ***Columbia***

Traumatic Aortic Coarctation in The Critically Injured Patient

Case Report

The surgeon has long desired more adequate, readily available, relatively inexpensive, denouement of bloodflow in the critically injured patient. The routine physical modes of visualization and palpation during physical examination are gross and may be ineffectual. Arteriography as an adjunct in the determination of vascular patency and continuity is not without associated morbidity. Since Strandness *et al*[1] first described the Doppler ultrasonic flowmeter as a useful tool in the evaluation of peripheral arterial occlusive disease, we have utilized the instrument as a means of primary evaluation of vascular injury in the injured patient.[2]

The ultrasonic flowmeter is an instrument which can rapidly provide an assessment of vascular injury, transcutaneously and atraumatically, in the emergency room. When used intraoperatively with a gas sterilized probe the Doppler has proven to be a great adjunct in the evaluation of the efficacy of vascular repair.[3]

Transcutaneous determination of bloodflow with the ultrasonic flowmeter is based on a principle first described by Djohann Christian Doppler, an Austrian physicist and mathematician of the 19th century. The principle involves changes in sound pitch as the distance between the listener and the source of sound are rapidly varied. The Doppler ultrasonic flowmeter consists of an oscillator, a transducer containing two piezoelectric crystals of matched oscillatory characteristics, a detector sensitive to frequencies in the audible range and an amplifier to amplify the detector output so that the signal may be presented in audible or visual form.

A frequency shift (f_d) or change in pitch is noted when the output of the oscillated piezoelectric crystal encounters intravascular particulate matter in motion (red blood cells). The ultrasound backscattered from this encounter has a slightly different f_d because of a gain or loss in energy. The f_d is proportional to the velocity of flow in the vessel monitored. Turbulence may be noted in a vessel with the Doppler because of the change in the velocity wave-form as it passes over an atheromatous placque.

The clinical use of the Doppler flowmeter is analogous to the use of the stethoscope. Continued use and comparison of findings with arteriographic findings aids in the development of an expertise with the instrument. In a normal vessel, two and sometimes three sounds are heard during each cardiac cycle. The first sound is that of ventricular contraction causing blood to be forcibly ejected from the heart in systole. This is normally a crisp rapid sound. At the end of systole, there is a slight reversal of flow in the vasculature, which is followed by the sound of arterial contraction in diastole causing a surge of flow from proximal to distal. If the vascula-

The authors state that the Doppler flowmeter is a relatively inexpensive electronic device which will answer the need of many physicians and surgeons for a simple, rapid and easily interpreted analysis of vascular patency and sufficiency following trauma. As the operator gains expertise through its use and comparison of Doppler evaluations with angiographic interpretations, he will be able to derive information for avoiding risk and increased time associated with angiography in certain victims. The authors are from the Department of Surgery, University of Missouri School of Medicine, where Doctor Lichti is Assistant Professor, Doctor Lambert is Assistant Professor in Orthopedic Surgery and Doctor Almond is Professor and Chief of Thoracic and Cardiovascular Surgery.

ture is healthy, it will again be followed by a sequence noted in the second sound. The sound of continual flow is noted in diastole as only the f_d is heard without regard to the positive or negative sign. In graphic presentation, a discriminator may be used and positive and negative f_d may be ascertained, allowing the operator to discriminate or differentiate between normal and retrograde flow. Use of a blood pressure cuff on the extremity of a patient allows the operator to determine blood pressure with the Doppler.[4] Various sorts of arterial abnormalities may be detected by the sound of the arterial waveform in the vessel and by denoting the blood pressure in the upper and lower extremities.

By case report, we present the use of the Doppler flowmeter in evaluation of the vasculature of the critically injured patient.

Case Report

A 17-year-old white woman was seen in the emergency room. The young lady had been at a local hospital for 12 hours following multiple traumas incurred in an automobile crash and had been referred to the Medical Center by the local physician for repair of a fractured femur. The orthopedic surgeon who took the referral was not able to palpate pedal pulses in the left leg. Fearing vascular compromise in the leg due to arterial injury because of the fractured femur, he called in the Doppler consultant.

At the time of arrival of the Doppler consultant, routine urinalysis had been obtained and blood had been drawn for a routine blood analysis and for type and cross match for transfusion, if it became necessary. The patient had been moved to the Department of Radiology for chest and leg films. The chest film demonstrated a widening of the mediastinum suggestive of aortic trauma. Doppler examination of the lower extremities demonstrated both posterior tibial and dorsalis pedis arteries, bilaterally, with normal, but somewhat subdued, velocity waveform sounds. Ankle pressures were determined by the method of Lichti *et al*[5] and were compared to arm pressure. Systolic pressures taken with the cuff at the ankle were 38 mm Hg, left ankle; 48 mm Hg, right ankle; 150 mm Hg was the systolic pressure taken at the arm. The area of the left femoral was examined with the flowmeter and a "waterhammer," indicative of vascular occlusion, was noted in the area of the left femoral profunda.

In normal persons, it has been observed that ankle pressure is usually equal to the arm pressure, ±10 mm Hg. The difference of more than 100 mm Hg noted between ankle and arm of the patient was indicative of a coarctation of the aorta. No history of congenital coarctation could be obtained. The chest film had demonstrated the widening mediastinum and the Doppler flowmeter had offered information concerning pressure differential between arm and ankle that were out of the realm of normalcy. In light of the evidence obtained by Doppler examination and radiology, the decision was then made to perform a retrograde femoral arteriogram in order to study the thoracic aorta.

A catheter was passed percutaneously in a retrograde manner into the right femoral artery. Fluoroscopic visualization of the passage was carried out with a monitor. The catheter was passed from the abdominal aorta to the descending or thoracic aorta to the ascending aorta. Fig. 1 was taken after the first bolus of hypaque was injected. The aneurysmal dilatation may easily be seen in the anteroposterior film and the lateral view in Fig. 2. Initial dissection of the intima with compromise of the lumen brought about the traumatic aortic coarctation. In Fig. 3, the abdominal arteriogram notes the loss of the femoris profunda on the left, and Fig. 4 shows the continuity of the left superficial femoral artery. These and the Doppler data were in agreement.

During the time in the Radiology Department, the patient became hypotensive and started vomiting. She was immediately taken to the operating room for repair of the lacerated thoracic aorta. At the time of anesthesia induction, she became severely hypotensive and went into shock although she was being heavily transfused. The patient was immediately turned to the right side and the left chest was opened. It was found to be full of fresh blood and clot. Cross clamps were placed on the aorta above and below the area of laceration. The left atrium and right femoral artery were cannulated for cardiopulmonary bypass and the patient was placed in partial cardiopulmonary bypass. The heart was in arrest and resuscitation was used during the aortic clamp time. Resuscitation was accomplished and the lacerated aorta was resected. Tracheal intubation

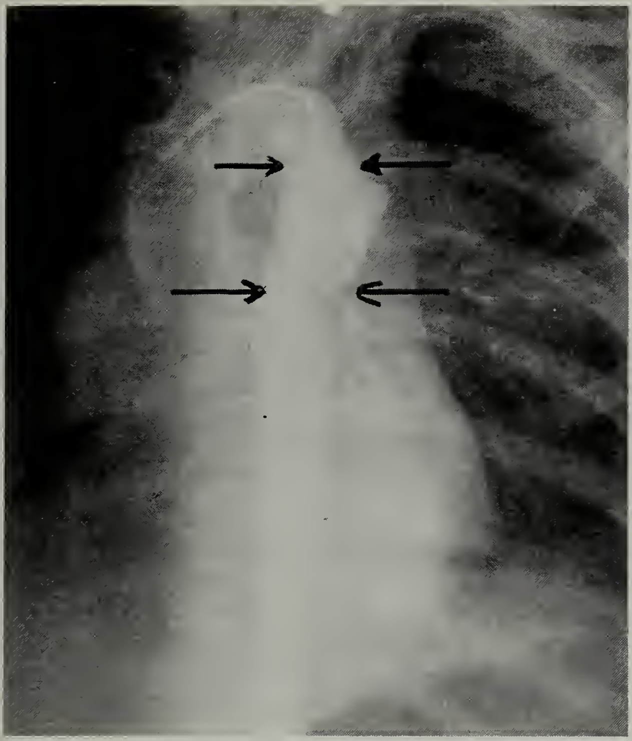

Fig. 1 Anteroposterior arteriogram demonstrating aortic lesion.

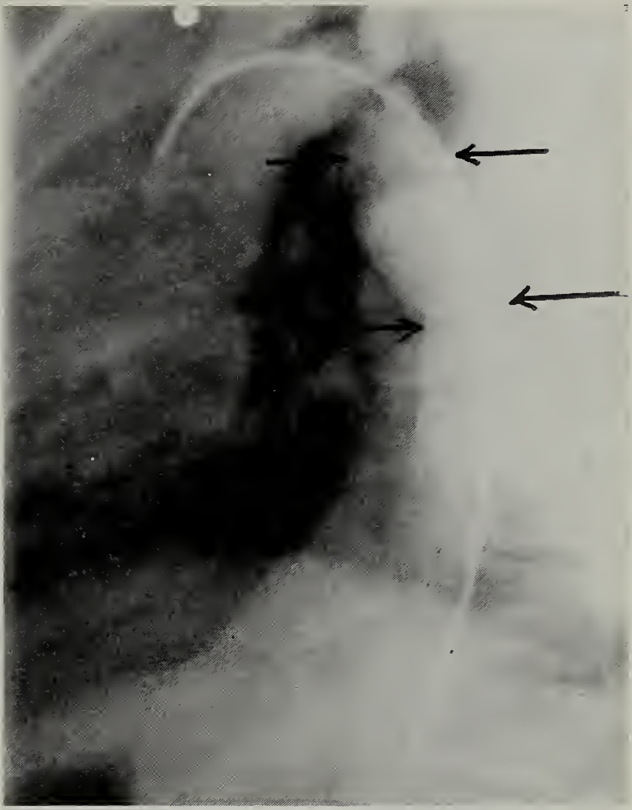

Fig. 2 Lateral arteriogram demonstrating aortic lesion.

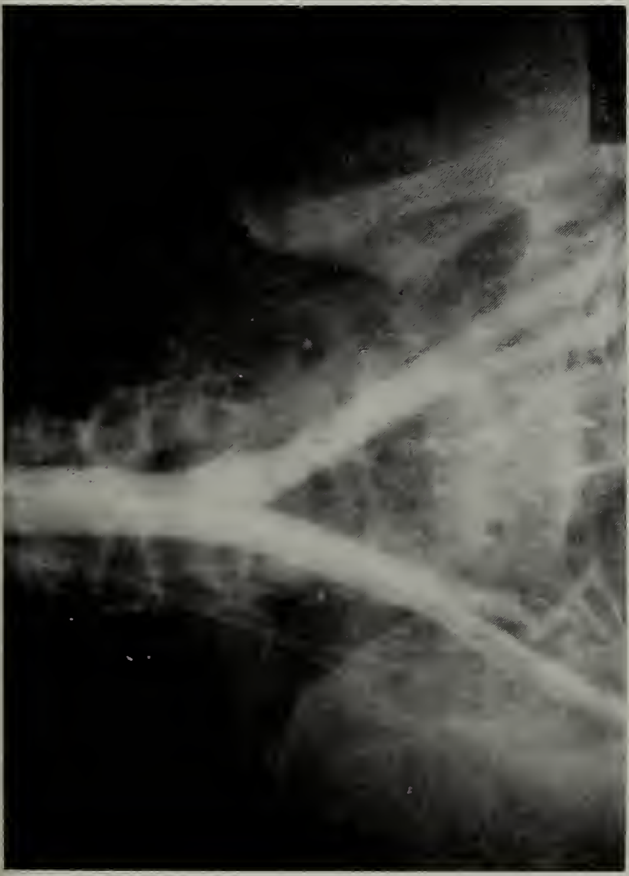

Fig. 3 Arteriogram of abdominal aorta and iliac arteries demonstrating vascular patency.

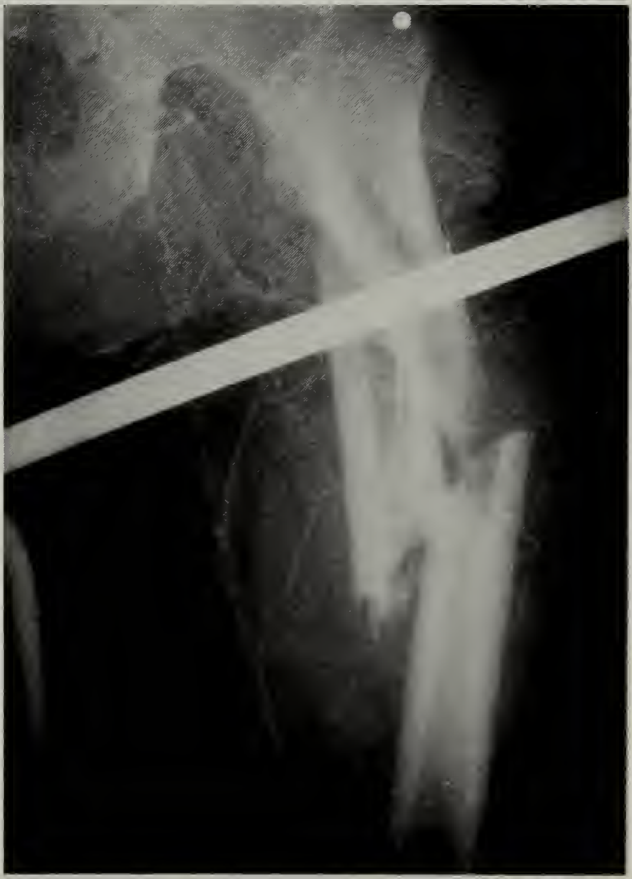

Fig. 4 Arteriogram of left thigh demonstrating patency of the superficial femoral artery. Note fractured femur for which patient was referred.

was used for anesthesia and positive pressure was used for aeration, but it was noted that bloody fluid was coming from the endotracheal tube. This became more increasingly extensive until the patient could not be properly maintained with positive pressure alone. The decrease in respiratory function produced severe hypoxia and acidosis. The extensive capillary damage and intraalveolar hemorrhage were irreversible and caused the patient's death.

DISCUSSION

This is the case presentation of a young woman who sustained multiple injuries in an automobile accident. She was attended at a local hospital for a period of 12 hours with fracture of the left femur being the target of prime consideration for her transfer to the Medical Center. An anteroposterior chest plate showing widening of the mediastinum and evaluation with the Doppler ultrasonic flowmeter gave first indication of the graveness of her situation. Subsequent arteriography then completed the diagnosis of a traumatic aortic aneurysm. Use of the ultrasonic flowmeter suggested that the aorta was being compromised.

For a period of more than three years, we have used the Doppler as an adjuvant in the delineation of vascular patency in the critically and severely injured patient. It has been used to evaluate vascularity in gunshot wounds, knife wounds, suicide attempts (by wrist slashing), burn patients, patients in hemorrhagic shock (by indirect monitoring of blood pressure), patients undergoing cardiac resuscitation and to ascertain flow in an artery whenever the palpation of pulses are questionable.[2, 6] In the case of acute occlusion of an artery by thrombus or embolus, Doppler delineation of the lesion along with clinical signs are used as the primary criteria for surgical intervention. Operative criteria for elective cases not amenable to arteriography have been provided in part by the ultrasonic flowmeter.[7] It is not our contention that angiography be replaced with ultrasonic evaluation. It is our contention that the inexpensive, portable, readily available and atraumatic Doppler be used in cases such as the one presented. The knowledge that something is wrong opens the pathways for corrective action. A possible saving of ten to 12 hours of time by simply determining the differential of ankle/arm pressure might have made the difference of life or death for this patient. The Doppler provides an audible hemodynamic assay of the vasculature it is being used to examine. The information derived through its use will undoubtedly aid the physician at the scene of trauma to make more meaningful decisions.

SUMMARY

The Doppler flowmeter is a relatively inexpensive electronic device which will answer the need of many physicians and surgeons for a simple, rapid and easily interpreted analysis of vascular patency and sufficiency following trauma. The Doppler ultrasonic flowmeter will not replace angiography, but our experiences with the instrument have demonstrated it to be a tremendous adjuvant to arteriography in the understanding of vascular problems. As the operator gains expertise through the use of the instrument and comparison of Doppler evaluations with angiographic interpretations, he will be able to derive information through the use of the Doppler ultrasonic flowmeter to avoid the risk and increased time associated with angiography in certain victims of trauma. Because the use of the Doppler has aided in our evaluation of vascular disorders, we find it to be a worthy addition to the armamentarium of the physician and surgeon.

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JAMES P. KEATING, M.D. *and* **DARRYL C. DeVIVO, M.D.,** ***St. Louis***

Reye's Syndrome

A devastating illness of infants and children, Reye's syndrome has been increasingly diagnosed. Although the etiology is unknown at present, there is potential for complete recovery of hepatic and cerebral function. The authors report their recent experience at St. Louis Children's Hospital to heighten physicians' early recognition of the syndrome. Doctors Keating and DeVivo are from the Edward Mallinckrodt Department of Pediatrics, Washington University School of Medicine and the Divisions of Gastroenterology and Neurology, St. Louis Children's Hospital.

In 1963, Reye, an Australian pathologist, described a group of children[1] who died within one to two days of onset from a sudden and devastating illness characterized by vomiting, alterations in consciousness and seizures. Although the diagnosis of encephalitis was frequently made clinically, there was only cerebral edema and no evidence of an inflammatory process at necropsy. Thus, the syndrome appeared to fit the ill-defined condition known as acute toxic encephalopathy.[2] But, striking, hepatic fatty metamorphosis was a consistent pathologic finding which had not been previously noted in acute toxic encephalopathy. Since his description, numerous cases have been reported both from the United States and elsewhere.[3–5] To heighten physicians' awareness of this syndrome, we are reporting our recent experience at St. Louis Children's Hospital.

Case Material

This report is based on a study of nine patients admitted to St. Louis Children's Hospital from 1968 to 1971. Inclusion in this series was based on (1) sudden onset of altered consciousness, (2) abnormal serum glutamic oxaloacetic acid transaminase and (3) evidence of fatty metamorphosis of the liver. In Case # 6, hepatic histology was not available, but otherwise the illness was characteristic. The clinical and laboratory details are recorded in Table 1.

The syndrome began during convalescence from an infectious illness, except for Patient # 6 in whom onset of symptoms coincided with the initial crop of varicella vesicles. Analysis in respect to month of onset revealed no seasonal preponderance, although cases clustered in time have been reported.

Hepatomegaly was noted in only four of nine patients on admittance, but enlargement of the liver developed in all during the first day in the hospital. Although mild jaundice has been reported occasionally, it was absent in our patients. Serum bilirubin values, determined in eight patients, did not exceed 2.0 mg per 100 ml. Liver function studies returned to normal rapidly in the survivors and in the two patients who were maintained on respirators beyond the first 48 hours of illness.

The neurological signs varied. In most patients, there was a two- to six-hour period of agitated behavior with increasing disorientation, followed by seizures, stupor, dystonic posturing, pupillary dilation, hyperpnea, decorticate or decerebrate posturing, apnea, areflexia and arterial hypotension. In our experience, pupillary dilation and hyperpnea have been ominous signs, usually followed by cessation in lower brain stem function. Blood gas determinations frequently revealed low arterial oxygen content in the absence of frank cyanosis. In the patients encountered more recently in this series, support of ventilation was provided early in the course of disease. To this end, curarization was necessary in two patients.

Hypoglycorrhachia, as emphasized by Reye, was found in only two patients (Cases # 2 and #5). Depression of blood or spinal fluid glucose has been documented in 50% of patients less than five years of age and in 10% of the older children. This age difference may reflect the known decreased tolerance for fasting observed in younger children.[6]

Although Reye's syndrome has been reported in twins,[7] siblings[8] and even repeatedly in a single patient,[9] our children did not demonstrate similar associations.

TABLE 1

Patient No.	*Age*	*Antecedent Illness*	*Symptoms and Signs*	*Outcome*	*Pathologic Findings*	*Cerebro-spinal Fluid*	*Liver Function Studies*	*Hypogly-cemia*	*Acid-Base*	*Initial Diagnosis*	*Comments*
1 88761	5.5 mo.	Facial crusted rash	V., S.	Died	F.L./C.E.	3 mononuclears	ND	ND	ND	"Encephalitis, sinus thrombosis, pneumonia, stomatitis"	
2 97131	20 mo.	Pharyngitis	V., S.	Died	F.L./C.E.	ND	O.T. = 1100 Pro. time = 26%	15 mgm%	Acidosis	"Encephalitis"	Melena in 2nd day of coma
3 68-2436	9 yr.	Varicella & Rubeola vaccination	V., S., O.	Died	F.L./C.E. infarcted pituitary	Normal	O.T. = 2500 P.T. = 1200	Normal	Met. acidosis Resp. alkalosis	"Encephalitis, ? Reye's"	Hypertension and subsequently hypotension in course. Gastric ulcers
4 69-2321	4 yr.	Varicella	V., S., O.	Died	F.L./C.E.	Normal	O.T. = 5700 P.T. = 4000 Pro. time = 20% NH$_3$ = 275	Normal	Acidosis; Hyperkalemia	"Reye's, ? varicella, encephalitis"	Hypotension (BP = 70/0) associated Ebstein's anomaly
5 69-5195	6 yr.	Cough & fever	V., S., O.	Died	F.L./C.E. infarcted pituitary	Normal	O.T. = 475 P.T. = 375	14 mgm% (C.S.F.); later in course. Hyperglycemia	Resp. alkalosis Met. acidosis	"Reye's"	Guaiac and stools. Coffee ground emesis
6 70-7542	4 yr.	Varicella	V., S., O.	Lived	ND	Normal	O.T. = 535 P.T. = 195 Pro. time = 40% NH$_3$ = 240	Normal	Resp. alkalosis Met. alkalosis Met. acidosis	"Varicella encephalitis"	On respirator 18 hours, status epilepticus 12 hours, complete neurologic hepatic recovery
7 76837	9 yr.	Pharyngitis	V., S., O.	Lived	Fatty metamorphosis (biopsy)	Normal	O.T. = 690 P.T. = 670 Pro. time = 63%	Normal	Resp. alkalosis Met. acidosis	"Salicylate poisoning"	Preexistent seizure disorder, return to normal function after 24 hours on respirator; salicylate 26 mgm%
8 71-4612	15 yr.	Pharyngitis	V., S., O.	Died	F.L./C.E.	72 mononuclears	O.T. = 530 P.T. = 620 Pro. time = 12%	Normal	Met. acidosis	"Combative state"	Uncontrollable hemorrhage into hypopharynx and lungs
9 71-6624	8 yr.	Varicella	V., S., O.	Died	F.L./C.E. infarcted pituitary	Normal	O.T. = 1200 P.T. = 5000 Pro. time = 10% NH$_3$ = 287	Normal	Resp. alkalosis Mild met. alkalosis	"Varicella, encephalitis ? Reye's"	Diabetes insipidus late in course

Legend
F.L. = fatty liver.
C.E. = cerebral edema.
V = vomiting.
O = opisthotonic posturing.
S = seizures.
O.T. = serum glutamic oxaloacetic acid transaminase.
P.T. = serum glutamic pyruvate transaminase.
ND = tests not done.

Comment

A diagnosis of Reye's syndrome is being made increasingly early in the course of the illness. Heightened awareness of the clinical syndrome has led to the measurement of serum glutamic oxaloacetic acid transaminase and serum glutamic pyruvic transaminase in all patients with symptoms and signs of an acute encephalopathy following in the wake of a seemingly banal upper respiratory or other infectious disease. Confirmatory percutaneous liver biopsy is frequently possible early in the course of the illness.

The cause of the syndrome is unknown, though many investigators regard it as an abnormal host response to a number of stresses, infectious and toxic. Varicella is associated in about 10% of cases and the influenza virus is suspect in others. Aflatoxin, a product of the fungus aspergillus flavus, has been implicated in Thailand, where there is a high endemic incidence of a very similar syndrome.[10]

An inherited abnormality in carbohydrate metabolism leading to individual susceptibility is suggested by the observations of Kogut and associates.[8] They reported cases of Reye's syndrome in siblings of children suffering from ketotic hypoglycemia. This may be a key observation especially as it proves to be a significant mechanism responsible for the neurologic features of the syndrome. Other investigators have focused upon the high blood ammonia concentrations and have related the encephalopathy to this.[3] Alternatively, the brain may be independently injured by the disease process, perhaps at the level of intermediary metabolism.

In our view, different mechanisms may underlie the central nervous system dysfunction in a given case and the responsible factor may differ at one or another stage of the illness. Hypoxia undoubtedly plays an important role late in the course of disease if impaired circulation or ventilation supervene for any reason. Treatment, therefore, must include vigorous supportive therapy, particularly maintenance of adequate ventilation and oxygenation by early intubation and mechanical ventilation. Monitoring of arterial and central venous pressure, arterial blood gases, acid-base parameters as well as blood glucose, ammonia and electrolytes are mandatory for essential and rational supportive treatment. Bleeding abnormalities occur frequently,[11] usually in association with a depletion of those coagulation factors produced in liver; disseminated intravascular coagulation also may occur, but the place of heparin therapy in treatment is uncertain. Exchange transfusions, peritoneal dialysis[12] and plasmaphoresis, in an attempt to remove ammonia and other possibly toxic materials, have been used with inconsistent results. Controlled trials of these measures are necessary to determine their value.

Summary

Reye's syndrome, an acute disturbance in brain and liver function, has been increasingly diagnosed during life. Although the etiology is unknown at present, there is potential for complete recovery of hepatic and cerebral function. Early recognition of the syndrome permits anticipation of the many treatable complications, namely, hypoglycemia, shock, hypoxia, coagulopathy, seizures and electrolyte and acid-base disturbances.

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The Suicidal Patient

SUICIDE is the tenth leading cause of death in the general population.[1] In the United States, at least 25,000 persons commit suicide each year.[2] In the 15- to 24-year age group, it is the third leading cause of death. Only accidents and cancer cause more.[3]

Death by suicide is unusually tragic. Survivors are stigmatized, since others long remember "her father committed suicide" or "her husband committed suicide." It also is economically tragic since the most typical victim is an educated, middle-aged male taxpayer and father of two children.

It is particularly appropriate for nonpsychiatric physicians to be knowledgeable about suicide since they are the physicians most likely to see such individuals before the suicidal act.[4] Of that large percentage manifesting mildly depressive symptoms, more than 50% are seen by physicians within one month prior to their suicide.[4]

The problem of identifying the characteristics of the person likely to commit suicide has received considerable attention. Some facts will be of interest to note.

CHARACTERISTICS OF THE SUICIDAL PATIENT

1. *Age.* All studies indicate that suicide increases with the patient's age.[2] However, this relationship is less true for women than for men,[2] and findings in the Missouri Division of Mental Health indicate that it is less true for mental hospital patients.[5]

2. *Sex.* Men are three times more likely to commit suicide than women, although women are prone to make attempts.[2]

3. *Marital Status.* In the general population, divorced and separated persons are highest risks, married persons being the least prone.[6]

4. *Race.* In the United States, white people are higher risks than blacks.[2] These differences may be related to educational and occupational differences. There is evidence that rates are changing, perhaps as a result of the changing social role of blacks in our society.[7]

5. *Educational and Occupational Level.* Most evidence indicates that the risk of suicide goes up as these increase. Members of professional groups seem to be higher risks than nonprofessionals.[8, 9] Many physicians commit suicide. The total number is equivalent to one medical school graduating class per year (about 120). However, Craig and Pitts indicate that physicians may not have a higher rate than the general population.[10]

6. *Physical Illness.* People with genuine physical illnesses are more prone. For example, individuals with chronic renal failure who must rely on dialysis machines are high risks.[11]

7. *Mental Illness.* The mentally ill are at least five to ten times as high risk as the general population.[12] In the Missouri Division of Mental Health, we found the risk to be approximately ten times that for the general population.[5] One author observed 1,000 schizophrenic patients for ten years and found that 41 of them had committed suicide.[13]

8. *Depressive Symptoms.* These are the most outstanding and cogent suicide predictors. Sometimes, the symptoms may be subtle and masked, but probably few people commit suicide who do not have a significant element of depression.[14]

9. *Homicidal Tendencies.* Suicidal and homicidal ideation are often found in the same person. We have noted this in data collected in the Missouri Division of Mental Health Standard System of Psychiatry.[15] It is a common occurrence for an individual to commit suicide after he has killed someone, not infrequently a family member.[16]

10. *Personality Type.* Competitive, compulsive, ambitious and individualistic individuals seem to be particularly prone.[9, 17] Firstborn children are found to have these personality characteristics and seem to be more prone.[18]

11. *Prior Attempts.* Individuals who have tried suicide before are more likely to kill themselves than are individuals from the general population.[19, 20] Many successful suicides have a history of prior attempts.

12. *Preoccupation with Suicide.* Individuals who talk and think about suicide are very high risks. This is probably the single most outstanding danger signal.[4] The presence of a plan for suicide is further evidence of risk.

Depression

Depression usually accompanies suicide.[14] A careful, sensitive interview is an effective way to assess the presence and level of depression. The MMPI, which has a depression scale, is also of assistance. Some features of depression are: fear of losing one's mind, feelings of hopelessness and helplessness, increasing lack of "future orientation," thoughts of death, hypochondriasis, guilt feelings, loss of interest, inability to concentrate, fear of losing control, fatigue, insomnia, loss of appetite, weight loss, loss of sexual drive, motor retardation or agitation, withdrawal.

Identification of the Suicide Prone

Using the facts outlined above, one can try to identify individuals with increased risk. This involves gathering data on the individual patient and giving each item appropriate importance and weight.

In order to assist the clinician in identifying the high risk patient, several suicide prediction scales have been developed.[21, 22] Observations concerning age, race, prior attempts and other reasons are used in a tabulating system. The higher the score, the higher the risk. In such a system, each entry is given a certain weight.

In the Missouri Division of Mental Health, using standardized observations made by staff and relatives and a statistical formula, we have been able to identify patients five times as likely to have suicidal thoughts as the general mental hospital population.[15] Depending upon the population, different considerations are necessary. For example, suicide risk typically increases with the patient's age. For some reason, however, this does not hold true of mental hospital populations, at least in the Missouri state system.[15] As differences are scientifically sorted out, it is likely that suicide prediction scales will be made increasingly accurate. Using standardized statistical techniques, a computer-stored statistical formula may be able to assign risks with greater accuracy than can the unaided clinician since it is difficult for the clinician to remember all of the variables and their relative importance. This is an area in which many believe that computerization will be of help since the computer can remember all of the items necessary, statistically develop the importance of each factor and assign the proper risk for each individual under study. In general, it is found that when it comes to predicting human behavior, the statistical formula comes out as well or better than the clinician using conventional techniques.[23] The clinician will always make the final decision, but the computer should offer him some help.

Since many physicians are the first to be consulted by depressed and suicide-prone persons, they are in a key position to identify the suicidal patient. Often, they are obliged to manage the patient since a psychiatrist may not be available or the patient refuses psychiatric help. This article provides original information and a review of characteristics and management of the suicidal patient to help the nonspecialist gain a better perspective of this important subject. Doctor Sletten is a Professor and Doctor Evenson is a Research Associate at the Missouri Institute of Psychiatry, University of Missouri School of Medicine.

Considerations Regarding Referral

For a nonpsychiatrist, it is probably advisable to seek consultation when an individual threatens suicide or for other reasons appears to be high risk. It may be that all such patients should be referred to a psychiatrist, at least until the emergency is over. The psychiatrist often has easier availability to indicated treatment procedures, such as security wards and electroshock.

However, there are areas in which it is difficult to get the patient to the psychiatrist. Also, the patient or his family may be against such referral and the nonpsychiatrist might be obliged to care for the patient. If the nonpsychiatrist elects to treat the patient, he will be wise to seek consultation early and to refer those individuals who continue to have suicidal ideation or who are high risks.

Management of the Suicidal Patient

As one studies his patients to identify potential suicides, he will be evaluating level of depression. If the patient is significantly depressed, he should be treated even if he is not suicidal. One tries to relieve the patient's depression in any case. The physician will prevent suicide as he helps the patient, since it is from the depressed group that suicide occurs. When an attempt has occurred and when the patient seems suicidal, one needs a specific plan of action.

Since most people commit suicide when they are alone, it is unwise to leave high risk individuals unattended. The person in attendance can not only physically prevent suicide, but also can offer encouragement, comfort and diversion to less morbid subjects. During nighttime, one can use adequate sedation along with surveillance to insure that the patient is asleep and, thus, unable to commit suicide. It is useful to remove guns, knives and other dangerous weapons and to avoid high places. If one is unable to have someone with the patient during this period, the next best thing is to place the patient in a locked ward. However, individuals bent on suicide are highly creative in devising methods to do so. In locked rooms, patients have hanged themselves from bedposts by using strips of sheets, belts or shoelaces.

Suicide should be openly discussed. The patient should be encouraged to describe why he is depressed, how he got this way and what he thinks would be helpful. It is useful to be frank about your plans. You can advise the patient that you want someone to stay with him since you want to be as sure as possible that he does not kill himself—that you plan to take no chances.

It should be vigorously pointed out that suicidal ideation is a temporary thing; that if the person stays alive, he will in time lose the wish to die; that cure is possible; and that either time or treatment or both will bring this about.

The patient usually feels he is a failure and lacks self-esteem. It is useful to challenge these ideas, and to point out successes he has had; that there are possibilities for improvement in his situation; that it is possible for him to change; that life is a constant change; and, therefore, that it is foolish to think of suicide. The suicidal patient is not totally convinced that all is lost. If the therapist challenges negative, despondent ideas, the patient sometimes can be swayed into thinking more positively.

The responsible physician should see a seriously suicidal patient at least daily and stay constantly available to those in attendance with the patient.

Talking with People Close to the Patient

Although relatives sometimes contribute to the patient's problems, they also can often be a source of strength and help. Relatives can help establish the level of suicidal potential and help identify what may have gone wrong in the patient's life. The physician should be attentive to their appraisal although he cannot always take it at face value. They often have useful suggestions concerning what relieves or aggravates the patient's despair.

Relatives often can help repair a patient's self-esteem, if they are willing to say kind words and reduce tension and discord. Sometimes, they will not have known the level of the person's despair and may not have attempted to instill hope or self-confidence. Relatives, as well as the physician, can challenge concepts of hopelessness and despair.

Finally, relatives may be able to physically stay with the patient until the suicidal threat is gone.

Longer Term Considerations

Antidepressant medication usually is indicated. Two widely accepted drugs are amitriptyline (Elavil) and imipramine (Tofranil). The former is felt to have some sedative effect and may be of more benefit for the individual who has signs of agitation and anxiety. Both drugs can be used in combination with minor and major tranquilizers.

A patient who has been suicidal deserves a long-term psychotherapeutic relationship. Since such individuals are likely to become suicidal again, a high priority should be to establish a monitoring procedure so that one will be alerted when a problem recurs. The best way to do this is to establish rapport with the patient so that he will stay in touch with you and return when symptoms reappear. Such rapport also is useful in working with the patient to help him modify his own behavior and, perhaps, his environment. Most physicians feel that such work, indeed, can be done by the nonpsychiatrist. In Britain, this is commonly the case.

In such a working relationship, the patient and the therapist ideally have agreement on issues and problems and work as partners toward reducing them. Not infrequently, the patient has an excessively severe conscience and superego which makes it difficult for him to reach the goals he has set. Perhaps, he has worked excessively hard, has failed to develop outside interests and has narrowed his focus to the extent that life is no longer meaningful. Often, his compulsive working may be an attempt to bolster a sagging sense of worth and an attempt to increase his self-esteem. Sometimes, it is helpful to reappraise what he has achieved. It may be noted that, indeed, he has accomplished considerable in the face of obstacles. To have a respected, knowledgeable individual, such as a physician, recognize this and express it will help restore confidence. Where immaturities, indiscretions and personality defects exist and are recognized, the therapist can be invaluable in encouraging the patient to continue to strive towards modifying his personality and behavior. The therapist can be useful in encouraging the patient to strive towards change and to reward him recurrently as he tries to do so.

Sometimes, the solution to problems may involve environmental changes such as a change of job, housing, locale or goals. Humans are highly variable, and the treatment must be tailored to meet the situation.

Summary

The depressed and suicide-prone frequently see a physician prior to suicide. Thus, the physician is a key person in identifying suicidal persons. Elderly, depressed men who talk of suicide are extremely high risks. The psychiatrist is best equipped to manage a suicidal patient, but other physicians are sometimes obliged to do so since a psychiatrist may not be available or the patient and relatives refuse to go to one.

Suicidal patients should not be left alone. Antidepressant drugs are useful. It is helpful to challenge the patient's concepts of hopelessness and despair and to point out that such suicidal ideas are temporary. It is helpful to establish rapport and a long-term relationship in order that the suicidal patient will return to the physician as symptoms recur. In the context of this relationship, the patient's self-esteem sometimes can be improved and life styles favorably modified.

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The 66th Annual Meeting of the Southern Medical Association (SMA) will be held on November 13-16 at The Rivergate Convention Center in New Orleans, La. Held annually to keep physicians abreast of new methods, medicines, research findings and advances in equipment and technology, the conference will offer a wide scope of medical and scientific programs.

Besides the medical and scientific portion of the convention, several social functions have been planned for SMA members. They include a golf tournament, alumni reunions, special activities for the Woman's Auxiliary and the entertainment highlight of every SMA meeting, the President's Dinner Dance on November 13.

The SMA Annual Meeting is open to all physicians, residents, interns, medical students, nurses, technicians and other paramedical personnel. There is no registration fee.

Special X-ray Exhibit

SIDNEY RUBIN, M.D., RODGER LAMBIE, M.D. *and*
EDWIN HERMAN, M.D., ***Kansas City***

Radiologic Problem Case

THE PATIENT is a 27-year-old Negro man who first presented in the spring of 1971 with pain and stiffness in the right side of his neck.

Past History: In May, 1971, the patient developed pain and swelling over the left, lower rib cage. He associated the pain with minor trauma incurred when leaning against a chair. An ecchymotic area developed. It was believed to be a hematoma and was drained on two occasions. Cultures were taken, and the cultures at both times were reported as being negative.

Thereafter, the patient developed stiffness of the neck and stiffness of his back. He was seen repeatedly by neurologists who recommended physiotherapy, which was instituted. The pain persisted and progressed.

In August, he was admitted to Menorah Medical Center for three weeks because he had an elevated sedimentation rate and progressive pain in the neck. Cervical spine studies were negative (Fig. 1). The chest film was reported as normal, as well as rib films made over the area of drainage (Fig. 2). Now, he began to complain of difficulty in swallowing. He had lost 22 lbs since the onset of his illness.

Physical Examination: Physical examination revealed fullness in the area beneath the right jaw. There was some cervical adenopathy and

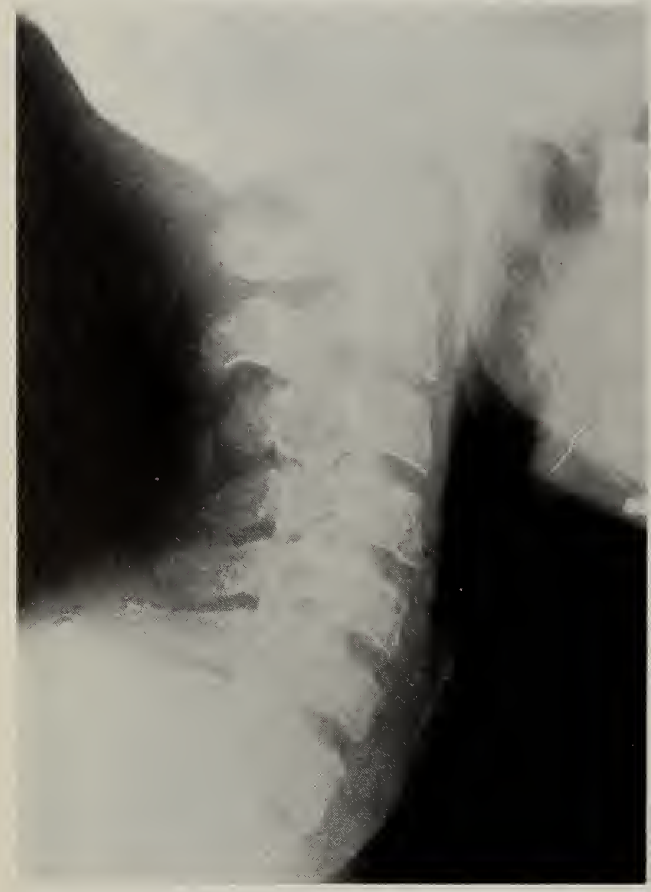

Fig. 1 A lateral roentgenogram of the cervical spine revealed an ossicle of bone posterior to the fourth cervical spinous process. This represents an ossicle in the Nuchal liagment. No abnormality was demonstrated.

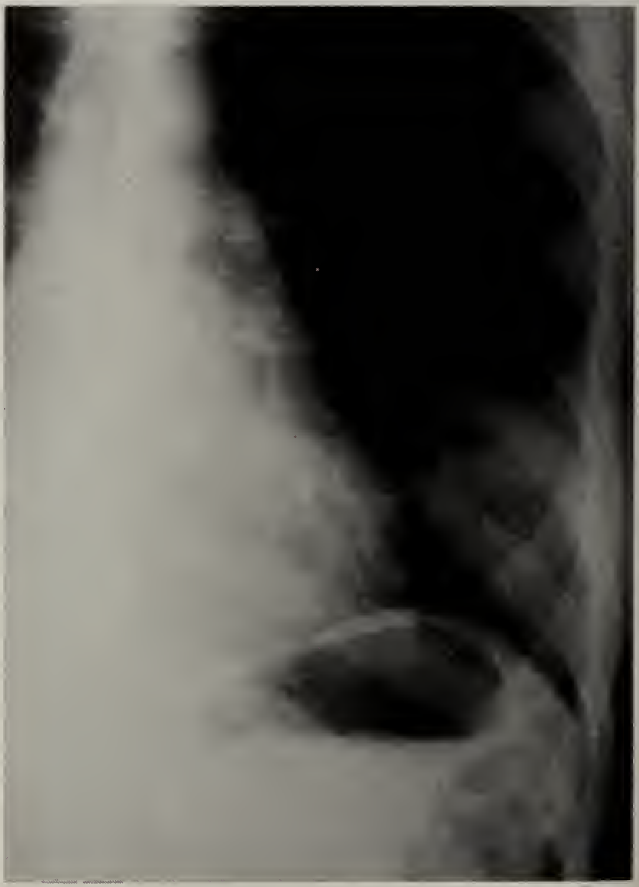

Fig. 2 A rib film of the left thoracic cage demonstrated normal-appearing bone density and structures. No abnormalities were observed in the underlying lung.

the nodes were tender. Examination of the oral pharynx showed fullness in the right retropharyngeal space with paresis of the right soft palate. The patient was extremely "gaggy." There was a pointing abscess of the right pharynx with swelling and edema in this area. The patient was unable to bend his neck under stress due to the marked spasm of the posterior neck muscles. He also had difficulty rotating his neck. There still was a small incisional drain in the left posterior chest where the hematoma had been incised.

Laboratory Data: Laboratory studies showed elevated total serum proteins (8.2 gm/100 ml) with elevated gammaglobulins, but otherwise normal protein fractions. The urinalysis was negative. Complete blood cell count showed a hemoglobin value of 15.2 gm/100 ml.; hematocrit, 43%; white blood cells, 5,000/cu mm with 49 polys, 13 stabs, 3 eosinophils, 30 lymphocytes, 5 monocytes. There were a few atypical lymphocytes. Platelets numbered 315,000 and the reticulocyte count was 0.3%. SMA-12 was normal except for elevated serum protein. The prothrombin time, PTT, SGOT and CPK were normal.

Radiological Examination: An X-ray of the chest showed some slight apical scarring on the right. In addition, there was a defect or erosion in the eighth rib posteriorly (Fig. 3) which was not evident on previous films. The question arose as to whether the rib defect was caused by a neoplasm or inflammation. The possibility of this being a surgical defect was excluded upon personal assurance from the surgeon that he did not enter the pleural cavity. The cervical spine films reaffirmed a soft tissue mass in the retropharyngeal region (Fig. 4) with marked thickening of the prevertebral soft tissue. The bony structures did not appear abnormal. The findings were consistent with retropharyngeal abscess or tumefaction.

The authors of this series of articles presenting unusual radiologic problem cases are from the Department of Radiology, Menorah Medical Center, where Doctor Rubin is Chairman. They were assisted in this case by P. W. Reitges, M.D., Pathologist, and Dave Hazuka, M.D., Radiologist.

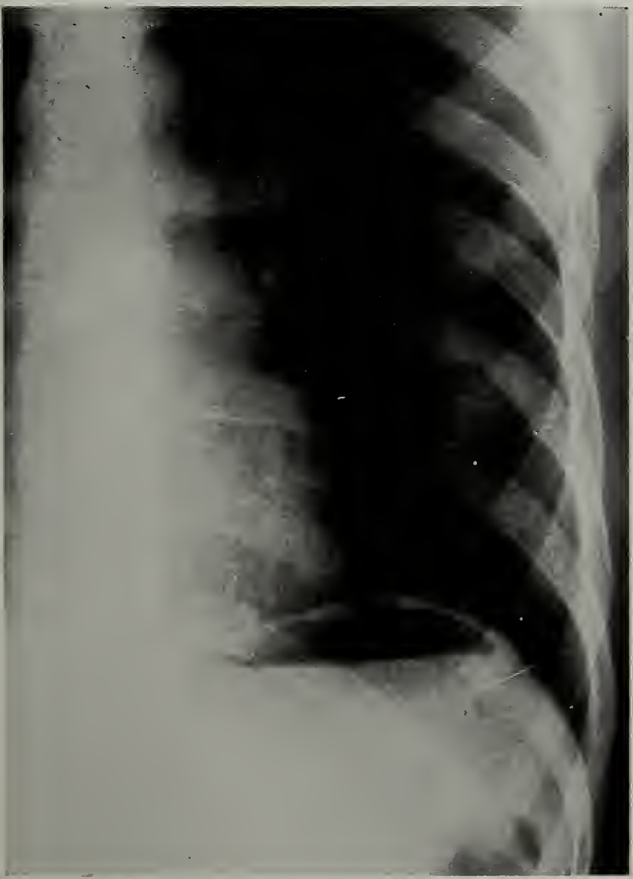

Fig. 3 The eighth rib now reveals some erosion along the posterior inferior border with minimal periosteal proliferation. This radiograph was made two months after the study observed in Fig. 2.

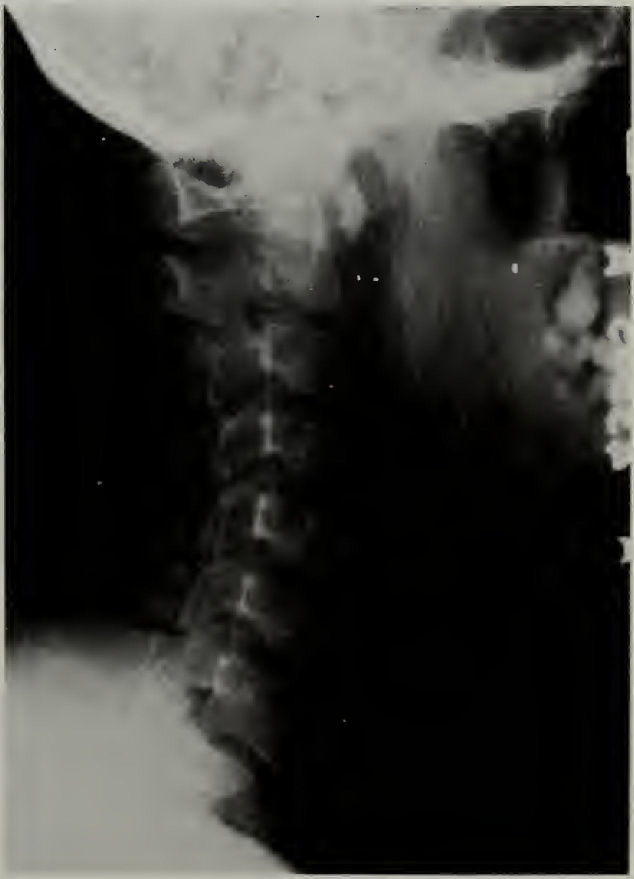

Fig. 4 In August, the osseous portion of the cervical spine appeared normal. The lateral projection revealed a large soft tissue density protruding into the retropharyngeal area. The prevertebral soft tissue is increased down to the seventh cervical.

Current History: In the patient's hospital course, various skin tests were performed. The PPD intermediate skin test was intensely positive. The histoplasmin, coccidiodin and blastomycosis skin tests were negative and their complement fixations also were negative. The patient underwent biopsy and drainage of the retropharyngeal abscess; 40 cc of pus were obtained. With the finding of caseating granuloma, the draining back lesion was then biopsied and similar findings were noted there. Cultures from the retropharyngeal abscess and back lesion grew out Mycobacterium tuberculosis, although none was seen on direct smear. The patient was placed on antituberculous medications and discharged two weeks after admission.

With antituberculous therapy, the patient's general condition improved. He regained his weight and felt stronger. His only complaint was the persistence of his neck pain and profound stiffness. He was unable to turn his head without turning his entire body, and elevating his body required support of his head by holding his face with his hands as he moved to an erect position.

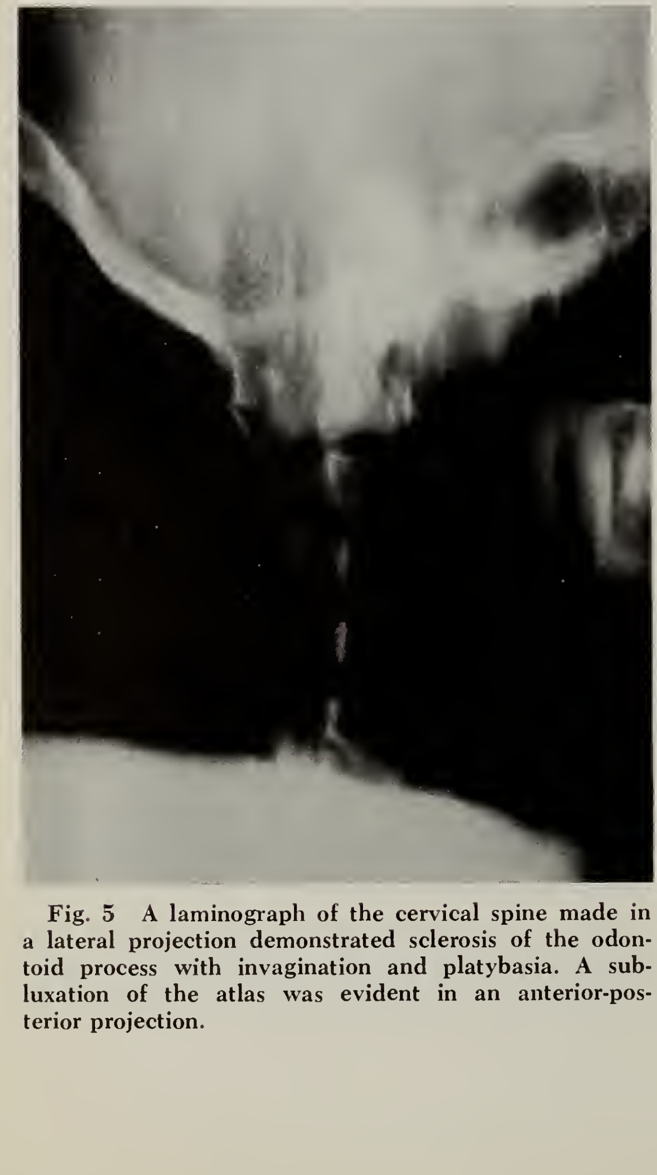

Fig. 5 A laminograph of the cervical spine made in a lateral projection demonstrated sclerosis of the odontoid process with invagination and platybasia. A subluxation of the atlas was evident in an anterior-posterior projection.

Cervical spine films were made, and it was apparent that the odontoid was not as readily visualized as on the previous examination. When routine films failed to demonstrate the base of the skull and the odontoid process, laminograms were taken of this area (Fig. 5).

The odontoid appeared eroded and demineralized, and there was a marked subluxation demonstrated at the basilar condyle of the skull and the atlas articulation. The head had mechanically realigned itself so as to appear in a proper axis with the remaining cervical spine. There was a definite odontoid invagination into the foramen magnum producing a platybasia. There was no evidence of cord encroachment clinically, however.

Radiological Diagnosis:

1. Infectious osteomyelitis of rib (tuberculosis).
2. Tuberculous abscess (Retropharyngeal).
3. Osteomyelitis of atlas and axis.

Differential Diagnosis: *Ewing's Sarcoma*—Bone destruction, with osteomyelitic response in the young adult, may suggest Ewing's Sarcoma. Soft tissue tumor is rare in Ewing's. Retropharyngeal mass would tend to exclude this diagnosis.

Pathological Report: Oct. 27, 1971—Retropharyngeal space mass abscess: acute and subacute suppurative organizing and granulomatous inflammation with Langhans'-type giant cells. No acid-fast bacilli were seen on acid-fast stain; the culture was positive for tuberculosis.

DISCUSSION

Tuberculosis is still a prevalent disease that challenges the clinician and radiologist. The infrequent occurrence of tuberculosis, arthritis and osteomyelitis has lulled the physician into a state of incredibility when he is confronted with what once was common diagnosis.

With the advent of antituberculous drugs, the pulmonary picture has changed. Tuberculosis of the spine and hips is modified so that the "clinical" picture of "Pott's disease" is a rarity.

It is for this reason that we find ourselves with red face and astonishment when a well-nourished, young black physician is seen with acid-fast disease which presents in an unusual manner and remains obscure until late in the chronic state of the disease. Twenty years ago, retropharyngeal abscesses were considered to be tuberculous in the youngster under five years of age. Today, the most common cause of abscess has been tonsillitis or streptococcus infection.

Therefore, in a 27-year-old patient, the mani-

(Continued on page 879)

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Reversal of Limb Ischemia in Senior Citizens

Safe Enhancement of Longevity With Innovated Vascular Techniques

SYMPTOMATIC ATHEROSCLEROTIC OCCLUSIVE VASCULAR DISEASE of the lower extremities is all too frequent cause of disability in the steadily increasing senior citizen segment of our population. Although proven vascular techniques are available for reestablishing flow to ischemic extremities, a significant percentage of older patients have associated cardiopulmonary disease which precludes the risk associated with major vascular reconstruction. Another smaller percentage presents with ischemia related to occlusion of a graft which had been placed earlier to alleviate claudication. In either of these situations, the physician is often confronted with a mentally alert and otherwise active patient, whose day-to-day activity is progressively limited and who realizes that amputation looms on the horizon.

During the past five years, demonstrated efficacy of specific low-risk vascular reconstructive procedures has allowed us to extend the benefits of revascularization to a wider spectrum of older patients with minimal morbidity and mortality and a good chance for long-term success. Informed awareness about these procedures and about those clinical situations to which they are applicable can indirectly and directly contribute to an enhanced quality of longevity in one segment of our geriatric population. This communication describes management of a variety of clinical situations in which older patients presented with severely symptomatic ischemia or threatened amputation. Its purpose is to emphasize that the quality and duration of retirement years need not always be compromised by disabling ischemic symptoms or amputation and that desired or needed walking ability frequently can be restored with minimal risk in the fragile but active septuagenarian oldster.

There is definite rationale for correcting potentially morbid ischemic problems in older patients. First, as an increasingly larger segment of a susceptible population is entering retirement years physically and financially capable of independently pursuing and enjoying long-postponed interests and activities, fewer are willing to be resigned to wheelchairs or nursing homes. Second, preventative maintenance of healthy myocardial function is enhanced by regular exercise, and at a time in life when myocardial activity and collateralization need to be stimulated, compromised walking tolerance is anything but optimal. Successful revascularization may be accomplished safely by means of the following techniques, which are uniquely adaptive to both primary reconstruction in the high risk patient, and to retrieval of situations in which failure of previously functioning arterial bypass has occurred.

FEMORO-TIBIAL BYPASS

As recently as seven years ago, only isolated reports of successful bypass below the popliteal trifurcation appeared in the literature.[1-3] However, when it became evident that correctly performed vein bypass to the distal popliteal artery remained patent for long duration despite continued flexion-extension trauma across the knee joint, vascular surgeons began to selectively extend these grafts into suitable tibial vessels when extensive popliteal disease precluded anastomoses above the trifurcation and severity of clinical disease left amputation as the only other choice. Accumulated experience during the past five years has demonstrated surprisingly good two- and three-year patency rates[4-6] for femoro-tibial bypass when inflow perfusion is adequate, sufficient vein length of suitable integrity and diameter is available and a structurally patent tibial vessel exhibits good runoff into the foot. The spectrum of applicability of this procedure is illustrated by the following clinical cases.

CASE REPORTS

Case # 1. A 74-year-old businessman was referred to the University of Missouri Medical Center

(UMMC) with severe rest pain and stiffness of the left leg. Examination disclosed a weak femoral pulse; absent popliteal and pedal pulses; an extremity which was cyanotic, mottled and cool below the knee; and paresis of the foot. Immediate cessation of cigarette smoking was emphasized (and abstinence was assured by placing him in a room in which oxygen was in use) and heparin was instituted.

Although admission examination with the Doppler transcutaneous flow probe failed to detect pulsatile arterial perfusion below the ankle, over the next 48 hours the foot became pink and sensory and motor modalities returned also, weak digital flow could be heard. At this point, heparin was discontinued. A translumbar aortogram was obtained and revealed distal aortic and bilateral iliac disease. Outflow films disclosed total occlusion of both superficial femoral arteries. Although the right popliteal did reconstitute via collaterals, no vessels visualized below the severely diseased profunda femoris on the left. Realizing that the patient was not a candidate for aorto-iliac reconstruction, we tested the adequacy of external iliac-common femoral perfusion by challenging the left limb with five minutes of externally applied arterial occlusion. Although the appearance of reactive hyperemia was moderately delayed, its intensity and duration suggested that the compromised aorto-iliac inflow perfusion would support outflow reconstruction on the left if this were surgically feasible.

At operation, the popliteal trunk and trifurcation were found to be totally obliterated, and exposure of the lower posterior tribial revealed this vessel to be a solid cord. The anterior tibial was then exposed at mid-calf level and found to be patent. Minimal but encouraging backflow was present. After an arteriogram demonstrated flow into the foot, femoro-anterior tibial bypass was performed by bringing the lower end of the vein graft through the tibio-fibular interosseous membrane. A benign postoperative course followed. The patient was discharged from the hospital on the 12th postoperative day with a pink, warm foot and weakly palpable dorsalis pedis pulse. When seen in followup ten months later, the left lower extremity was completely asymptomatic.

Comment: Although well into his 70s, this patient ran his own business, was actively involved in community affairs and was an enthusiastic “do-it-yourselfer” around his home until the day preceding his hospitalization. While severe pain, clinical appearance of his leg and arteriographic findings all suggested that amputation would be necessary, additional evaluation disclosed that inflow perfusion was adequate to support popliteal or infrapopliteal revascularization. However, upon exploring the popliteal fossa, minimal bleeding was encountered and the popliteal trifurcation was found to be totally obliterated.

Given this set of clinical and operative findings a few years previously, nearly all vascular surgeons would have proceeded with amputation. Moreover, few surgeons would have criticized amputation ten months ago, particularly when a technically satisfactory on-table femoral arteriogram failed to suggest evidence of primary channel patency below the knee and further exploration disclosed a nonfunctional posterior tibial. However, provided with the evidence that inflow perfusion was adequate for distal limb revascularization and being able to locate a patent anterior tibial channel, we were able to circumvent the risk and high rate of prosthesis failure associated with amputation in a 230 lb., eighth-decade senior citizen.

Case # 2. Five years following femoro-popliteal bypass, successful contralateral femoro-posterior tibial bypass was performed on a 61-year-old retired steel worker, who was found to have a totally occluded popliteal artery when he presented with a cold, mottled, numb right foot. Three months later, his left femoro-popliteal graft (Dacron) thrombosed. After an unsuccessful attempt to reestablish patency (during which the patient had a cardiac arrest and was resuscitated), attempted iliac-posterior tibial bypass was followed by above-knee amputation. Within six months, he was fully ambulatory on his prosthesis, following which he enjoyed ad lib activity until the pulse suddenly disappeared in his contralateral vein graft about three years later. He presented about 24 hours later with a severely ischemic lower extremity. After clinical evaluation disclosed absence of the ipsilateral femoral pulse, translumbar aortogram revealed a short segment of the common iliac artery to be patent.

Accordingly, the patient was taken to the operating room. Using a right lower quadrant extraperitoneal approach, a knitted teflon prosthesis was interposed between the common iliac artery and the original posterior tibial vein graft after the latter had been cleared of thrombus. During the four months which have intervened since he was discharged from the hospital on the 21st postoperative day, the patient has returned to full and asymptomatic ambulation.

Comment: Once a functioning vein graft fails, chances for being able to restore flow through the conduit are slim. In this situation in which the distal anastomoses was at ankle level, we felt that amputation was nearly inevitable. However, recognizing the disability associated with bilateral amputation and appreciating this particular individual’s unusual grit and determination, we undertook a procedure which involved minimal

The quality and duration of retirement years need not always be compromised by disabling ischemic symptoms or threatened amputation. Desired or needed walking ability frequently can be restored with minimal risk to a wider spectrum of fragile but mentally alert septuagenarians. Eight case reports illustrate use of femoro-tibial bypass, profunda femoris revascularization and axillo-femoral bypass to alleviate symptoms and circumvent amputation in productive older patients who presented with disabling ischemia. Doctor Henzel is Assistant Professor, Doctor Lundman is Chief Resident and Doctor DeWeese is Professor and Chairman, Department of Surgery, University of Missouri Medical Center.

risk and morbidity should failure occur. Careful thrombectomy and heparin-irrigation, together with meticulous attention to vascular detail, resulted in retrieval of a leg destined for amputation. While attempted iliac-tibial bypass was unsuccessful after this particular patient's left femoro-popliteal had failed, we have been able to retrieve an extremity with tibial bypass in another patient who became severely symptomatic after late failure of a femoro-popliteal graft.

PROFUNDA FEMORIS REVASCULARIZATION[7-12]

Two observations have taught vascular surgeons that the deep femoral artery is a functionally remarkable substitute for superficial femoral flow, when this latter vessel becomes occluded by atherosclerotic plaque. First, when aorto-iliac inflow is adequate and infrapopliteal runoff patent, superficial femoral occlusion is usually an asymptomatic lesion in our older generation. Secondly, despite the 33% to 50% incidence of superficial femoral occlusion which is encountered in patients who require aorto-femoral reconstruction, few of these individuals require subsequent femoro-popliteal bypass and palpable pedal pulses return in many. In other words, correctly performed revascularization of the profunda femoris artery can provide sufficient flow to the lower extremity to meet the metabolic needs of everyday activity when collateral channels around the knee are adequate and outflow below the knee is patent.[13, 14]

The following case reports illustrate how *designed* revascularization of the profunda femoris can retrieve limbs which otherwise would come to amputation or remain severely symptomatic.

CASE REPORTS

Cases # 3 & # 4. Within a five-month interval, two different sexagenarians presented with femoral aneurysms and severely symptomatic ipsilateral extremities. Aorto-femoral bypass had been performed nine years earlier in one patient and five years earlier in the other. In both instances, severe claudication developed insidiously as thrombus within an enlarging false aneurysm finally occluded graft limb inflow. Since both patients had significant cardiac disease, the aneurysms were resected and graft limb-to-profunda interposition performed through an extraperitoneal approach using epidural anesthesia. Each patient was discharged before the tenth postoperative day, and neither has had recurrence of activity-limiting claudication in the seven and 11 months which have elapsed since their respective operations.

Case # 5. A 65-year-old fulltime barber presented to UMMC with severe claudication. Some nine years earlier, within hours following bilateral femoro-popliteal bypass, he incurred a massive myocardial infarction with subsequent occlusion of both Dacron grafts. After recovering from the infarction, he sought no further treatment for his legs. Over the next five years, claudication resolved as he faithfully pursued a medically-guided walking program which was initiated primarily to protect his cardiac status. However, claudication recurred about 20 months before he presented to us. As his walking ability deteriorated during the ensuing 12 months, he began experiencing episodes of angina-like chest and left arm pains. His primary reason for again seeking consultation about his leg was so that he could "resume walking exercise to build up my heart again."

After EKG monitoring of treadmill walking confirmed the presence of exercise-related angina, we reviewed the risk of and rationale for proposed extraperitoneal profunda femoris revascularization with our cardiologists. Subsequently, a 6 inch segment of saphenous vein was interposed between the patent external iliac artery and primary profunda femoris trunk. When the patient was discharged nine days later following a benign postoperative course, palpable pedal pulses were present. During the two years since operation, he has resumed full-time barbering. When last seen six months ago, he was fully active and walking at least a mile every day. Angina episodes were infrequent in occurrence and transient in duration.

Comment: Although each of the patients described above was a candidate for social security, their desired *and enjoyed* level of physical activity had been sharply curtailed by progressively severe lower extremity ischemia. In each case, borderline ischemic myocardiums must have been benefitting from medically supervised, daily walking programs. As claudication rapidly lessened walking tolerance, one patient experienced return of symptomatic angina, another required procainamide (Pronestyl) for increasingly frequent premature ventricular contractions and the third had a myocardial infarction. Whether the objective and subjective evidence of worsened cardiac ischemia would have occurred if claudication hadn't interrupted good exercise programs is open to conjecture. However, following revascularization and gradual return to their previous programs, angina resolved in one patient and another was able to discontinue Procainamide.

In the two patients whose aorto-femoral grafts had already provided a combined total of 14 years without lower extremity claudication, planned direct profunda femoris revascularization permitted functional retrieval of occluded graft limbs and circumvented rapidly approaching pregangrenous ischemia. In the third patient, external iliac revascularization of a well-developed profunda system returned strong pulsatile flow to a foot which had been without palpable pedal pulses for nearly ten years. Moreover, the 15 to 20 sublingual nitroglycerin tablets which he has required in the past six months equals about one half the number that he was taking *each day* when he presented with severe lower extremity ischemia.

AXILLO-FEMORAL BYPASS[15-18]

While both axillo-femoral and femoro-femoral bypass were originally employed to salvage limbs in the face of infected aorto-femoral prosthesis, their efficacy has now sufficiently proved that two segments of the older population who present with disabling claudication may be candidates for this type of vascular bypass. As evidenced by the case histories which follow, these are the patients in whom irretrievable occlusion of an aorto-femoral graft has occurred and who have severe aorto-iliac disease but are not candidates for major inflow reconstruction.

CASE REPORTS

Case # 6. Two weeks following distal aortic resection and bilateral aorto-femoral bypass, a 63-year-old, retired railroad employee experienced sudden onset of severe pain and stiffness of his right leg. Successful thrombectomy of the ipsilateral graft limb was short lived. One month later, a second thrombectomy was complemented with vein bypass to a popliteal segment which had only one of three runoff channels patent below the trifurcation. An avid squirrel hunter, the patient enjoyed unlimited activity for about 15 months, when his femoro-popliteal graft occluded and he presented with severe claudication. Over the ensuing year, symptoms progressed despite a program of walking-to-tolerance, cessation of smoking, vasodilators and attempted weight loss. By the time that he ultimately presented with continuous rest pain and a cold, mottled foot, all who had been involved in his care had developed strong admiration for his personal tenacity, faithfulness to followup and intense desire for remaining active.

Accordingly, after reviewing the very real possibility of amputation with a then 66-year-old gentleman, the right profunda femoris artery was exposed and an arteriogram obtained which demonstrated unusually large collateral-channel flow into the lower extremity. An axillary-to-profunda bypass was constructed, after which the patient had an unremarkable postoperative course. After remaining patent for ten months, during which time the patient could walk a quarter mile without claudication, the graft occluded when he inadvertently compressed it while leaning his side against a neighbor's fence during a protracted back yard chat.

Nearly eight months have elapsed since graft occlusion and although he has moderately severe claudication, the patient is free of rest pain and has digital flow in the foot. Examination with the Doppler flow probe reveals extremely rich collateral flow, which wasn't present before axillo-profunda bypass. While this procedure definitely circumvented early amputation and provided him with ten months of claudication-free activity, it would appear that an unexpected bonus of the graft was exercise-induced development of an unusually extensive collateral system, which now permits a markedly-restricted but acceptable level of claudication-free walking despite total absence of primary inflow and outflow channels and thrombosis of his profunda femoris revascularization.

Case # 7. A 67-year-old, retired laborer with severe myocardial disease presented with pregangrenous changes of his left lower extremity in association with extensive aortoiliac occlusive disease. After definitive workup confirmed that he constituted an unacceptable risk for aorto-femoral bypass, a knitted teflon prosthesis was interposed between his left axillary and common femoral arteries. The graft has remained patent for more than three and one half years. Although the patient does not have palpable pedal pulses and experiences claudication after walking 150 to 200 yards, his foot is sufficiently asymptomatic so that he can pursue his retirement hobbies of gardening and fishing with minimal restriction.

Comment: Following successful axillo-femoral bypass, a couple of tongue-in-cheek admonitions should be made to recipients of this procedure. Men should substitute suspenders for belts and exchange jockey-type briefs for loose-fitting boxer shorts. Similarily, women must be warned that figure-enhancing brassieres or form-fitting girdles may precipitate claudication. Fortunately, individuals who become candidates for this type of procedure usually value their extremity more than their vanity. However, one of our patients was a matronly, 67-year-old grandmother who, some six months after successful axillo-femoral bypass, decided in favor of her figure over a floppy bra. While "crossing her heart," the tighter bra occluded her bypass, and amputation followed a transiently successful thrombectomy of her graft.

Obturator Foramen Bypass[19–22]

When limb viability is dependent upon an arterial prosthesis which becomes infected in the femoral region, patient and surgeon are faced with a frustrating and potentially morbid, but not hopeless, situation. However, the approach to successful limb retrieval must be two-pronged: revascularization must be carried out through noninfected anatomy and the infected prosthetic segment should be resected. If both of these two maneuvers can be accomplished without contaminating the extraperitoneal pelvis, results should be similar to that described below.

Case # 8. Shortly after technically successful aorto-femoral bypass, a 61-year-old man retired from plumbing because of persisting claudication and settled on a small farm where he intended to raise horses. This venture was barely underway when progressing claudication necessitated staged bilateral femoro-popliteal bypass. Although an autogenous vein was used on each side, infection developed in the right groin. After a protracted period of systemic and local antibiotic treatment, the patient was referred to UMMC. Examination disclosed strong pedal pulses in both feet and a pulsating 3 inch segment of prosthesis, which was lying free in a purulent trough immediately juxtapositional to the primary groin incision. Following culture of the wound, appropriate antibiotics and a program of local wound care were instituted.

On the morning of the operation, the exposed graft and wound were covered and sealed with Vi-Drape, following which the entire area was scrubbed with povidone-iodine (Betadine) before transporting the patient to the operating suite. After induction of anesthesia in the operating room, the entire area was prepped in the usual fashion, following which definitive draping was carried out in such fashion that the infected area would remain covered and out of the field of revascularization. After the vein graft had been isolated at mid-thigh level some 6 inches below the infected wound, the proximal right limb of the aortic prosthesis was exposed through a right, lower-quadrant extraperitoneal approach. After injecting heparin distally, the limb was transected in such fashion that the distal end retracted and was then "buried" with tissue-inverting sutures so as to obliterate the distal canal. After the obturator foramen had been isolated, a tunnel was created from the isolated vein graft through the adductor muscle group and obturator membrane to the proximal transected limb of the aortic prosthesis. Following interpostition of a teflon prosthesis, both surgical wounds were thoroughly irrigated with a chloromycetin solution, approximated and dressed in occlusive fashion. After these wounds were draped, the infected prosthesis was undraped and reresected. The bed of the infected wound was widely debrided, liberally irrigated and left open to heal by secondary intention.

A benign postoperative course followed. After nearly four weeks of wound care, the original site of the infected prosthesis was sufficiently healed so that the patient was discharged from the hospital. During the ensuing two months, completion of wound healing occurred and the patient returned to active involvement with breeding horses.

Comment: For this particular patient, amputation would have constituted a cruel epilogue to three operations and successful revascularization of both lower extremities. Not only did he intend to remain active, he also had made plans for an entirely new occupational venture. Our primary motivation for undertaking obturator bypass, however, was an awareness that required amputation would in all likelihood have had to be above the knee, since earlier need for femoro-popliteal bypass assuredly indicated that the profunda system was not capable of providing sufficient flow to the infrapopliteal region. Rehabilitation following below-knee amputation is sufficiently good so that had we felt confident of healing at this level with ligation-transection of his graft, we might not have exposed this patient to the minimal but distinct risk of obturator bypass.

Discussion

At an age in life when one's capacity for normal physical activity is no longer essential for fulfilling occupational and family responsibilities, it is ironic, *but not unequivocally necessary,* that the quality or duration of retirement years be jeopardized or compromised by symptomatic lower extremia ischemia. While many patients and physicians are unwilling to accept the risk of corrective revascularization in later years, there are certain patients who, when confronted with progressively disabling claudication or rest pain, prefer the risk associated with attempted surgical restoration of their capability to walk rather than to accept disability and eventual invalidism. There also are those situations in which the underlying cause of severe ischemia, if left untreated, constitutes a greater threat to life than properly selected and carefully performed surgical intervention.

Surgeons have long recognized the high mortality associated with amputation in the elderly, but it has only been in the past few years that we have begun to observe that the mortality associated with successful revascularization appears to be much lower. Numerous factors obviously contribute to this reality. Among them are the differences in patient attitude following amputation, protracted or failed stump healing associated with ischemia and inevitable occurrence of such mortality-producing complications as pneumonitis, pulmonary embolism, congestive heart failure, etc., which seek out the minimally-active, recently-amputated oldster.

Although the senior citizens with overt ischemic necrosis, rest pain or intolerable claudication usually present or are referred for definitive treatment, surgical risk is increased and chance for success decreased in this group. However, what about risk of mortality relative to chance for long term success in those oldsters who have claudication which is exercise-limiting but not life-threatening? Indications for and knowledge about surgical vs conservative therapy remain ill-defined and unclear in this particular segment of persons in the geriatric population who have symptomatic occlusive vascular disease.

Recognizing that progressing claudication encroaches upon the quality of retirement years, that more than one third of those septuagenarians who have severe claudication or rest pain progress to amputation within two years and that the incidence of postoperative mortality for amputation may exceed 25% in this age group,[23, 24] it behooves us to update our knowledge about the life expectancy of our 70-year-olds relative to both risk and chance for success associated with offering newer vascular techniques to those senior citizens whose retirement years are being compromised or jeopardized by symptomatic lower extremity ischemia. When actuarial life tables reveal that mid-eighth decade oldsters have a 90% chance of living to age 77 and a 75% chance of still being around at age 80,[25] we need to start scrutinizing the mortality associated with the two- to five-year patency rate for those contemporary reconstructive procedures, which cannot only enhance the quality of longevity, but also circumvent the very high risk of possible eventual amputation.

Aortofemoral bypass and aortoiliac thromboendarterectomy constitute definitive and well-proven methods of inflow reconstruction, while femoro-popliteal bypass has resolved outflow problems for thousands of patients.[26-30] Unfortunately, the mortality associated with the former procedures ranges between 5% and 10% for seventh-decade candidates, and few vascular surgeons are comfortable about offering this type of inflow reconstruction to very many candidates who are in their eighth decade of life.

Femoro-popliteal bypass has been successfully performed in octagenarians and nonagenarians with acceptable risk and good results. However, an overall five-year patency rate which ranges from 30% to 65% suggests that a significant number of patients are alive (and frequently going strong) when their femoro-popliteal bypass fails. In this group of patients and in those who initially present with good inflow but an obliterated popliteal trifurcation, infragenicular femoro-tibial bypass frequently can retrieve an otherwise unsalvageable limb or alleviate claudication or rest pain which has severely compromised the quality of retirement-year existence.

As experience has accumulated with infrapopliteal vein bypass,[31, 32] the incidence of early failure has diminished and a number of groups have recently reported two- and three-year patency rates ranging from 50% to 75%.[4-6] The procedure has been performed in a variety of clinical settings, which have included numerous high risk patients, with an overall mortality rate below 4%. Limb salvage has been significant. Virtually every series includes a number of oldsters who were active with patent grafts when they died of unrelated cause three, four and five years after femoro-tibial bypass. When a structurally good vein of adequate length is available, distal anastomoses may be made below the ankle to either posterior tibial or dorsalis pedis vessels. Although anastomoses into patent anterior tibials usually are carried out well above ankle level, the vein must be sufficiently long to gently traverse from medial to lateral across the tibia-fibular complex without acute angulation.

Among the technical fine points which facilitate anastomoses into small diameter vascular conduits (average range, 2 mm to 5 mm) are intra-adventitial injection of xylocaine and periodic irrigation of the exposed vessel with warmed saline (both of which help to reverse spasm), insertion of a small polyethylene tube distally for intermittent heparin irrigation and placement of traction sutures. Subsequent to our personal experience and success with distal tibial bypass, we now advocate exposing infrapopliteal tibial vessels before proceeding with amputation in mentally and physically active oldsters in whom extensive popliteal disease precludes femoro-popliteal reconstruction. To date, in every instance in which a patent tibial vessel with good runoff into the foot has been found, femoro-tibial bypass has been successful, amputation avoided and the patient returned to claudication-free activity.

The profunda femoris can provide older patients with a second chance following ipsilateral inflow or outflow graft failure.[33, 34] This vessel also can provide high risk patients with a reasonable chance for successful primary reconstruction when there is an absent femoral pulse and superficial femoral occlusion on the ischemic side. Although the optimal method of revascularization in these situations is crossover bypass from a patent contralateral common femoral, it may be feasible, as illustrated by the cases described above, to retrieve an ipsilateral occluded graft limb or reestablish flow in ipsilateral common or external iliac host artery by approaching these inflow conduits extraperitoneally. During the past 18 months, we have performed 11 profunda femoris revascularizations, *excluding* our isolated axillo-profunda effort, in nine different patients without morbidity or mortality. Although one patient died of unrelated cause six months following deep femoral revascularization, seven of the other eight are free of claudication and pedal pulses are palpable in five of ten limbs.

Since axillo-femoral bypass was first reported by Blaisdell[35] eight years ago, crossover femoro-femoral revascularization as initially described by McCaughan,[36] has taken the lead as far as prolonged-patency, low-risk outflow revascularization is concerned.[37–40] Although every long-term series includes a few instances of three- and four-year patency, the majority of unilateral axillo-femoral grafts occlude before two years. Only half of Parsonnett's axillo-femoral grafts were patent at nine months, while 95% of the 33 femoro-femoral grafts in this series were open at 14 months. In Mannick's series of 46 axillo-femoral and 13 femoro-femoral grafts, one-year patency for the former was 80%, but only eight grafts were functioning at the end of five years.[43] Contrariwise, by the time of his report, no late failures had occurred in the 12 femoro-femoral grafts which were patent after one year.

In a carefully observed series of axillo-femoral bypass, Moore's group has recently documented a difference in patency rates among three types of commonly used prostheses.[45] Whereas only 15% of the woven Dacron grafts were patent at 24 months, 45% of the knitted Dacron remained open this long. However, for the newer DeBakey weave-knit graft, the two-year patency rate was a surprising 90%. In this series, almost half of the 44 patients who had 52 axillo-femoral procedures were over 70 years in age, yet operative mortality for the series was less than 3%. Interestingly enough, when the patency rate curve for the weave-knit prostheses was superimposed on the cumulative survival curve for the patient group, near-perfect match suggested that graft thromboses occurs at the same rate as patient mortality.

While this observation might appear to suggest an inordinately high two-year mortality rate for *all* patients who receive low-risk revascularization of the lower extremity, it is important to realize that in almost every series describing experience with each type of bypass, axillo-femoral recipients were poorer risk candidates than those patients who had femoro-femoral reconstruction. Even so, the discrepancy in long-term patency between femoro-femoral and axillo-femoral bypass is more than can be accounted for solely by diminished long-term *patient* survival. In reviewing comparative series, there appears to be little doubt that femoro-femoral bypass constitutes the better procedure with respect to long-term patency.

There are two reasons why our experience at this Center is almost exclusively axillo-femoral instead of femoro-femoral. First, all of our axillo-femoral patients were not only marginal operative risks but they also had marked inflow compromise in the contralateral leg. We didn't wish to compound risk by simultaneously jeopardizing his "good" limb. Secondly, the majority of the Missouri population who present to us needing bilateral inflow reconstruction and whose level of mental and physical activity warrant the operative risk are sufficiently sturdy to withstand definitive aorto-femoral bypass. However, as our approach to disabling lower extremity vascular disease becomes definitive for an increasing number of retirement age candidates, there is little doubt that femoro-femoral bypass will constitute the procedure of choice for a certain number of these patients.

Clinical indications for iliofemoral bypass via the obturator foramen are limited to situations such as the case described, resection of extensive groin malignancy and resection-bypass of mycotic aneurysms.[19-22] Our reason for describing the technique is to illustrate that one of the early major causes of morbidity and mortality with use of prosthetic materials in revascularization, i.e., infection of anastomotic suture line and graft, can now be remedied in most instances. As recently as eight years ago, suture line-prosthetic infection usually portended loss of limb and, frequently, loss of life. Currently, like the other innovated vascular techniques described above, obturator bypass provides a low-risk alternate to continuing disability or amputation for the patient who develops infection of an aortofemoral or femoral-popliteal prosthesis or for those who present with a mycotic femoral aneurysm.

Summary

Symptomatic atherosclerotic occlusive disease of the lower extremities is an all too frequent cause of disability in the steadily increasing older segment of our population. Of the 19 million Americans who are presently over 65 years of age, nearly seven and a half million are on the far side of 75. At age 65, a senior citizen can presently anticipate 14.8 years of additional longevity, while his 69-year-old companion stands a good chance of being around for an additional 12.4 years.[46] Unfortunately, a significant percentage of these individuals have or will develop activity-limiting claudication, which will compromise the quality of retirement years.

Although proven vascular techniques exist for reestablishing flow to ischemic extremities, many oldsters present with associated cardiopulmonary disease which precludes the risk associated with major vascular reconstruction. During the past few years, demonstrated efficacy of specifically innovated low-risk vascular procedures has allowed us to extend the benefits of revascularization to a wider spectrum of older patients with minimal morbidity and mortality and a good chance for lifelong patency. Informed awareness about these procedures and about the clinical situations to which they are applicable can result in an enhanced quality of longevity for one segment of our geriatric population.

Cases described herein illustrate use of femoro-tibial bypass, profunda femoris revascularization and axillo-femoral bypass to alleviate symptoms and circumvent amputation in productive and involved oldsters who presented with disabling ischemia. The quality and duration of retirement years need not always be compromised by disabling ischemic symptoms or threatened amputation; desired or needed walking ability frequently can be restored with minimal risk in the fragile but mentally alert and active septuagenerian oldster.

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Radiologic Problem Case

(Continued from page 870)

festations of a retropharyngeal abscess and lytic bone change in a rib evoked the first suspicion of the underlying cause.

Cervical spondylitis is extremely rare. However, cases have been reported,[1] and the presence of the retropharyngeal abscess should have made us suspect an osteomyelitic source. We were unable to demonstrate any definitive alteration of bone or any intervertebral space narrowing, such as is characteristic of tuberculous involvement of the spine.

Initially, tomograms should have been taken to depict (in detail) the odontoid process and base of the skull. This is particularly so in view of the history of stiffness and rigidity of the neck. An early change of the bone may have been demonstrated in such a study.

This case, therefore, is deserving of presentation to warn us of the occasional (not rare) confrontation with this disease, which was considered in every practitioner's daily differential list yesterday and which today has been shelved for lack of frequency.

Tuberculosis is still an important disease and is far from being eradicated. Recognition of the many and protean manifestations of this disease will aid in early detection of the illness so that proper therapy can be instituted.[2]

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The American Academy of Ophthalmology and Otolaryngology, at its annual business meeting in Dallas (September 28) approved unanimously the following resolution:

The extensive lay publicity given to the use of the ultrasound needle for the removal of cataracts was brought to the attention of the Council.

It was the opinion of the Council that scientific evidence has not been published in the medical literature to prove that this procedure is as safe or as effective as the methods of cataract extraction now used. The Council was quite concerned about the extensive lay publicity given the ultrasonic techniques before any long term scientific value was determined.

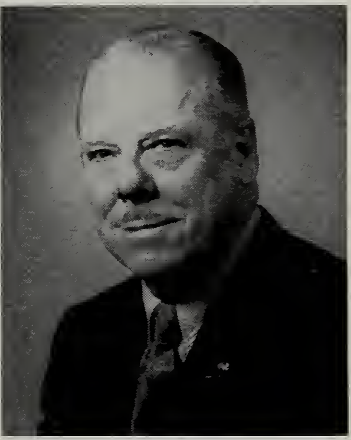
An ad hoc committee of the Council will be appointed to gather information and data on the safety, effectiveness and value of this technique. A symposium on ultrasonic removal of cataracts will be held at the Academy's 1973 annual meeting in Dallas.

Pinworm therapy is often a family affair

Contraindications: History of hypersensitivity to thiabendazole. **Warnings:** If hypersensitivity reactions occur, drug should be discontinued immediately and not resumed. Rarely, erythema multiforme has been associated with thiabendazole therapy; in severe cases (Stevens-Johnson syndrome), fatalities have occurred. Because CNS side effects may occur quite frequently, activities requiring mental alertness should be avoided. Safe use in pregnancy or lactation has not been established. **Precautions:** Ideally, supportive therapy is indicated for anemic, dehydrated, or malnourished patients prior to initiation of anthelmintic therapy. In presence of hepatic or renal dysfunction, patients should be carefully monitored. **Adverse Reactions:** Most frequently encountered are anorexia, nausea, vomiting, and dizziness. Less frequently, diarrhea, epigastric distress, pruritus, weariness, drowsiness, giddiness, and headache have occurred. Rarely, tinnitus, hyperirritability, numbness, abnormal sensation in eyes, blurring of vision, xanthopsia; hypotension, collapse; enuresis; transient rise in cephalin flocculation and SGOT; perianal rash, cholestasis and parenchymal liver damage; hyperglycemia; transient leukopenia; malodor of the urine, crystalluria, hematuria; appearance of live Ascaris in the mouth and nose. Hypersensitivity reactions

President's Message

As the official MSMA representative, your President attended the Kentucky State Medical Association meeting in Louisville on September 20-21. The Colonels, as usual, were lavish and gracious hosts and we hope to extend the same courtesy to them in St. Louis on March 29-April 1, 1973. The featured speaker was Mr. Mark Russell, the resident entertainer at the Shoreham Hotel in Washington, D. C., who is a Will Rogers type of political satirist. He opened his performance with a ditty entitled, "If you can't get a Kennedy, an in-law will have to do." He opined that the typical McGovern voter has to be "a gay Indian lettuce picker on welfare." "The Nixon kids wear blue jeans just like the McGovern kids, only theirs have a crease." The pronouncements of some of the political pundits sound like the blackjack dealer at Las Vegas who said, "It's bad luck to be superstitious."


Walter T. Gunn, M.D.

On the following Tuesday evening, September 26, in New York, 64 members of the Missouri Academy of Family Practice (also MSMA members) were elevated to Fellowship in the American Academy of Family Practice. In all, 4,200 were so honored and the gowning room at the Felt Forum in new Madison Square Garden was the best sample of organized confusion since the induction center in World War II. On the following morning, Sen. Edward Kennedy addressed the entire assemblage (some 8,000 people) in the auditorium in the Coliseum regarding his future health legislation plans. My own opinion is guarded, so I will quote some other opinions.

Dr. James L. Grobe, president of the American Academy of Family Practice, said he found the speech ". . . reassuring. I thought it was a pretty good speech. The tone was altogether friendly. He seemed as though he was trying to see our side. I would certainly think it would be impressive to many of the physicians."

Ms. Nancy Hicks, feature writer for the *New York Times*, stated, "Observers said that one reason for the tone of the speech was the fact that health had not caught on as a campaign issue this year as everyone expected it would. Since this is the case, it was said, some of the supporters of the Kennedy plan realize that it will never receive the Congressional support they hoped it would, hence compromises are being made with groups with different philosophies." (AAFP, Sept., 1972, Vol. 6, No. 3, p. 17)

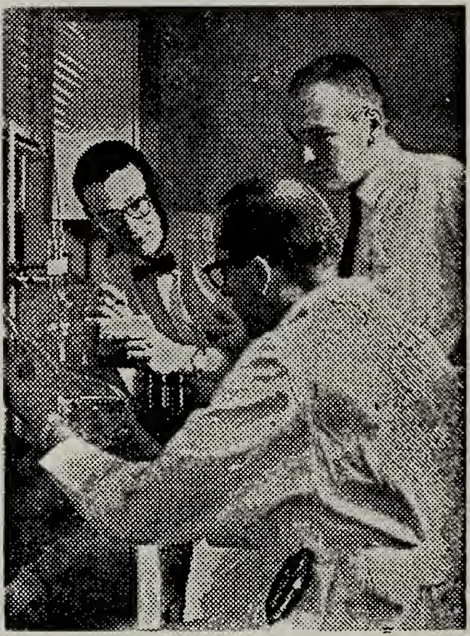
It is rumored that Senator Kennedy has filed suit in a Washington District Court questioning the legality of President Nixon's pocket veto of the 1970 Family Practice of Medicine Act.

At your MSMA office at the present time, there is an "acupuncture crisis." Following the passage of a resolution by the MSMA Council in Rolla on September 17 asking the Board of Healing Arts to define acupuncture as the practice of medicine and regulate it, it was discovered that the Board had acted similarly one month previously in answer to a written query from a Kansas City M.D.

Our office has been inundated with letters and requests for information. Long distance phone calls have come from as far as California. In the *AMA Newsletter* (Vol. 4, No. 36, Sept. 25, 1972), it is noted, "Acupuncture has no place in Chiropractic, according to the president of the largest chiropractic school. David D. Palmer of the Palmer College of Chiropractic, Davenport, Iowa, questioned the ability of chiropractors to give instruction in acupuncture. 'What makes a chiropractor all of a sudden an expert acupuncturist?' he said. Chiropractors by the hundreds have been attending seminars on acupuncture, and the Acupuncture Society of America has been established by a chiropractor in Kansas City, Mo." (*AMA Newsletter*, July 24). *Federation Bulletin* of the Federation of State Medical Boards (Vol. 59, No. 9, September, 1972) states: "Dr. Brian Davis, a Kansas City, Kan. chiropractor, is president of the Kansas State Board of Healing Arts. In a newsworthy ruling, the Kansas Board declared that 'acupuncture is not an accepted form of therapy to be applied by any branch of the healing arts.' The Kansas Board's position on acupuncture came about as a response to a request from the Kansas State Medical Society to rule on the use of the technique in the state."

AMA Newsletter (Vol. 4, No. 37, Oct. 2, 1972) informs us that "Medicare will not reimburse for acupuncture until pending scientific assessment of the technique has been completed, the Bureau of Health Insurance of the Social Security Administration informed Part B intermediaries."

AMA Newsletter (Vol. 4, No. 34, Sept. 11, 1972)—"Physicians who are unable to substantiate dates of hospital visits may be subjected to retroactive denial of Medicare benefits, AMA's Division of Medical Practice warns. Medicare requires that physicians be able to provide documentary evidence of hospital visits. In recent isolated instances, physicians have been directed to refund Medicare payments made more than a year ago. In each case the physician had neglected to make an entry on the hospital record or to take other steps considered as acceptable proof by the Social Security Administration's Bureau of Health Insurance."



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Woman's Auxiliary

The news is good! Our State Fall Conference in Columbia was a tremendous success. That, of course, means that we are grateful to the Woman's Auxiliary and MSMA leaders who made such an outstanding meeting possible and deserve special recognition. "Thank you" to Mrs. James A. Reid, Marshall, and Mrs. Gerald L. Miller, Kansas City, who moderated the Legislation Workshop; Mrs. Raymond Hartwig of Shawnee Mission, Kan., chairman for our Statewide Health Education Day; Mrs. Charles R. Willman, St. Joseph, our Auxiliary President-Elect; the MSMA Council for its support as co-sponsor of Health Education Day; the doctors who assisted us; and the MSMA staff. A special salute goes to the members of Boone County Medical Auxiliary, under the leadership of co-chairmen Mrs. George Wilson and Mrs. Lynn Mitchell, for such an efficient and well-organized meeting. With these people involved, success was inevitable.

Mrs. Keith D. Jones
President

Speaking of people being involved, Mrs. John A. Chenault, who is a member of the AMPAC Board and Past-President of the AMA Auxiliary, made a special request at the AMPAC Workshop in Columbia. Mrs. Chenault asks every doctor in Missouri to take his copy of *American Medical News* to his wife so that she will have this special source of information about the issues pertaining to health care. Please encourage your wife to inform her friends, neighbors and legislators about the issues. If she doesn't, who will? It also is vitally important that we all choose candidates who understand the health care issues and are friends of medicine and support them with both financial aid and volunteer efforts. Equally important, please help in getting every friendly voter to the polls in your community on November 7 and facilitate absentee voting, where applicable.

Speaking of the election, the wives of all MSMA members have received an invitation to join AMPAC and MMPAC. This is one of our major projects for the year. The cost for Auxiliary members is only $15. If neither you nor your wife has joined to date, why not send your check for $40 today and enjoy a *family* membership. The MSMA Auxiliary is offering awards in four categories to the county auxiliaries for PAC memberships they attain. Of course, the big point here is that the combined contributions of all physicians and their families are needed to achieve a worthwhile impact with our support. Royal O. Cooper, MSMA assistant executive secretary, has been speaking to county auxiliaries and presenting informative programs on legislation. It's up to us to take it from there. Whichever membership you choose, Mrs. James A. (Pat) Reid at 102 E. Rea in Marshall (65340) is watching her mailbox for your checks!

An invitation! It is my pleasure to represent Missouri as treasurer of Southern Medical Auxiliary this year. I invite you and your wife to attend our meeting on November 13-16 in New Orleans. We hope to have a "Missouri Table" at the luncheon. If you can join us, will you please notify our Councilor to the Southern, Mrs. E. F. Butler, 3110 Douglass, St. Joseph 65406.

EDITORIAL

THE ART OF MEDICINE

Every now and then, we hear that the art of medicine (presumably as practiced in the past) is lost and that we are now in the phase of science and technology. Those who believe this are those who *want* to believe this and think that the practice of medicine can be brought down to some common denominator. Under this presumption, the practice of medicine could be standardized and would be similar to the mechanics of an automobile, a precision instrument, the price of a loaf of bread or the development of a production line. Those who desire this are often ones who would like to have this standardization so that they can use it for their own purposes—politicians, labor leaders, insurance companies, public agencies and, often, the public.

This is understandable in that all of these organizations or the public would like to plan, budget and provide for their needs according to a scale. However, as doctors, we know that sickness does not come on schedule (for example, 8 to 5 daily); treatment and the response of an illness to treatment are not always predictable. Thus, our science, mechanics, chemistry, instrumentation, pharmacology and general therapeutics must vary.

When one adds to this the varying psychological factors that make up an individual, we begin to realize what a partly solved, complex "machine" the human body and individual actually is and how the art of medicine enters into prevention, diagnosis and treatment. A physician's approach to his patient is an important art and may or may not incite cooperation, confidence and support of his course of therapy. The reactions of relatives to an illness or injury may, in part, depend on the physician. The reaction of patients to a diagnosis or their response to the knowledge of a fatal illness will vary with the "art" of the physician and certainly is not a mechanical "cut and dried" event.

This is a part of medicine that we, as doctors, know intimately, but is difficult to or cannot be explained to organizations or others. However, it is a part of medicine that the individual and the public subconsciously feel. It is somewhat comforting to note that in a recent poll which was televised on our national TV newscast, the medical profession was first (even above the clergy) in its place of trust with the public.

ROBERT D. DUNCAN, M.D.
President, Greene County Medical Society
Bulletin of the Greene County Medical Society

LETTERS to the Editor

Doctors Seek Information

To the Editor:

I am compiling case reports of allergic reactions to biting insects, i.e., mosquitos, fleas, kissing bugs, bed bugs, gnats and flies—including horsefly, sandfly, and deerfly. I also am interested in reactions to fire ants.

I would like physicians to supply me with case reports of those patients who have had reactions to such insects. Please include in your reports the history of the type of reaction and complications, if any; the immediate treatment; if desensitization were attempted, what were the results?

Sincerely,
Claude A. Frazier, M.D.
4-C Doctors Park
Asheville, N. C. 28801

To the Editor:

A writer in England has written to the Missouri Division of Health requesting help in locating sources of information about the influenza pandemic of 1918 and 1919. The Division is appealing to any physician in Missouri who still might have vivid memories of that epidemic to communicate his memories of that epidemic to the Division of Health to include in its response to the writer.

We hope that some physician may still have some diary or other written accounts from that time or, failing this that some of the physicians who do recall events of the time would be willing to commit them to writing and provide them to the Division of Health. Correspondence in this regard should be addressed to:

H. Denny Donnell, Jr., M.D., M.P.H.
Director, Bureau of Communicable Diseases
Missouri Division of Health
309 Adams St.
Jefferson City, Mo. 65101

County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

Buchanan County Medical Society

The annual election meeting of the Buchanan County Medical Society was held on October 4 following a dinner at the St. Joseph Country Club.

Officers elected were as follows: President-Elect, Randal W. Weed, M.D.; Vice-President, William B. O'Connor, M.D.; Secretary, G. Tyson Carpenter, M.D.; and Treasurer, Robert W. Kieber, M.D. This marks the 20th consecutive year that Doctor Kieber has been elected to this office.

Dr. Richard L. Maginn was elected to the Board of Censors. Delegates to the MSMA who were chosen are John T. Rogers, M.D. and Ernest E. Wadlow, M.D. Alternates are R. Philip Acuff, M.D.; William B. Rost, M.D.; and Donald J. Stallard, M.D. Richard O. Craig, M.D., was named to the Board of Trustees for a five-year term. Edmund W. Kline, M.D., was named to the Committee on Public Policy and Lawrence H. Pifer, M.D., was chosen as a member of the Executive Secretary Committee.

The newly-elected officers and Elza F. Butler, M.D., President-Elect for the past year, will be installed at the annual installation dinner of the Society in December. Dr. Lawrence H. Pifer is the retiring President.

The Society unanimously endorsed the passage of a sewer bond proposal which is to be placed before the voters on November 7.

Following the meeting, Mr. Leonard J. Caramela of Chicago, Director of Alternate Delivery Systems for the National Association of Blue Shield Plans, and Mr. Jerry D. Wilson, Supervisor of Product Development for Kansas City Blue Shield, discussed "Alternate Delivery Systems."

William B. O'Connor, M.D., *Secretary*

Grand River Medical Society

Dr. Tom Cofer, at this meeting at the Strand Hotel in Chillicothe on September 14, began a long career as sole member of the Arrangements Committee, and 32 members and guests came to see what he had to offer. Following a social hour and an excellent smorgasbord, the ladies were dispersed and the doctors watched an interesting and instructive film on "Hypertension—A Mosaic in Medicine."

A business meeting was held and the minutes of the last meeting were not read.

The Society voted to accept the recommendation of the Board of Censors and was happy to receive as new members Jin Soo Yoon, M.D. of Chillicothe; David Ryan, M.D. of Trenton; and Ted George, M.D. of Marceline.

The Society voted to continue dues at $15 and, also, to have the dues billed as at present and not to include the dues of the MMPAC.

A letter had been received from Mr. Edward Hirsch, executive secretary of the Buchanan County Medical Society, inquiring if Grand River Medical Society would like to join that Society again in having a hospitality room at the coming 1973 MSMA Annual Session. It was voted to answer in the affirmative.

The meeting was adjourned with the announcement that the election of officers will be held in October.

Frank R. Daley, M.D., *Secretary*

SECOND DISTRICT

COUNCILOR
LYSLE M. BACH, M.D., HANNIBAL

Chariton-Macon-Monroe-Randolph County Medical Society

After a summer break, the Chariton-Macon-Monroe-Randolph County Medical Society held its regular dinner meeting on September 14 at Woodland Hospital Medical Library.

President F. L. Harms arranged the program which was presented by James Mohs, M.D., senior resident in endocrinology, University of Missouri Medical Center.

Doctor Mohs discussed "Calcium Metabolism." Slides were used to illustrate cases and to show the means by which parathyroid hormone and Vitamin D regulate the level of serum calcium and how tumors of the parathyroid glands may cause kidney stones and dissolution of bones. Only recently has a test been devised to measure the level of parathyroid hormone and the University Medical Center at Columbia is one of five places in the United States which can perform an accurate test for parathyroid hormone.

Following the formal discussion, Doctor Mohs answered a variety of questions from the floor.

Members present were as follows:

Chariton County—F. L. Harms, M.D.; D. D. Stuart, M.D.

Macon County—J. E. Campbell, M.D.; Gretchen Collins, M.D.; D. E. Eggleston, M.D.

Monroe County—F. A. Barnett, M.D.

Randolph County—Josephine Baker, M.D.; W. D. Chute, M.D.; C. C. Cohrs, M.D.; P. V. Dreyer, M.D.; J. Will Fleming, M.D.; T. S. Fleming, M.D.; L. E. Huber, M.D.; G. R. Hudson, M.D.; and R. V. Tompson, M.D.

Guests present were Dr. T. J. Hammond of Moberly and Dr. Leopold Lachance of Centralia and his son, Robert Lachance, a senior medical student.

W. D. Chute, M.D., *Secretary*

FOURTH DISTRICT

COUNCILOR
LOUIS P. HETLAGE, M.D., TROY

St. Charles-Lincoln County Medical Society

The St. Charles-Lincoln County Medical Society met in Troy on September 26.

The evening began with a social hour at the home of Dr. Louis Hetlage, Councilor for the Fourth District. Members of the group then progressed to Lincoln County Hospital where they were dinner guests of the Hospital. The program for the evening included a tour of the Hospital and a panel from the University of Missouri-Columbia School of Medicine.

Dr. Charles Poggemeier, Secretary, welcomed guests and presided at the September 26 meeting of the St. Charles-Lincoln County Medical Society in Troy.

Principal speaker was Paul R. Young, M.D., Medical Director for Continuing Medical Education, University of Missouri. Doctor Young extended greetings from William D. Mayer, M.D., Dean of the School of Medicine, who was unable to attend. He then discussed the capabilities of the School of Medicine and postgraduate medical education.

Discussions of their respective departments at the University were then presented by Dr. Daniel Winship, Chief of the Section of Gastroenterology of the Department of Medicine, and Dr. Boyd Terry of the Section on General Surgery in the Department of Surgery.

Following their presentations, Doctors Young, Winship and Terry invited questions and encouraged further discussions.

Dr. William H. Poggemeier, Secretary of St. Charles-Lincoln County Medical Society, presided at the program and short business meeting which followed the program.

William H. Poggemeier, M.D., *Secretary*

EIGHTH DISTRICT

COUNCILOR
HOWARD J. McALHANY, M.D.,
SPRINGFIELD

Jasper County Medical Society

Dr. Arthur Paul Klotz, professor of medicine at the University of Kansas Medical Center, presented a scientific program entitled “Uses of Endoscopy” at the meeting of the Jasper County Medical Society at Twin Hills Golf and Country Club in Joplin on September 12.

Ozarks Medical Society

The Ozarks Medical Society met on September 12 at Hill’s Restaurant in Neosho.

An interesting program on diagnosis and treatment of depression was presented by Dr. David P. Bhend of Joplin. Doctor Bhend is a psychiatrist.

A brief business meeting was held after the program presentation.

Paul B. Anderson, M.D., *Acting Secretary*

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Continuing Education Coming Events

Nov. 6-9	**Symposium: Internal Medicine** Postgraduate Medical Study K.U. School of Medicine, Kansas City, Kan. 66103
Nov. 8-10	**Recent Clinical Advances in Pediatrics** *Sponsors:* Danciger Institute for the Health Sciences; Departments of Pediatrics at Children's Mercy Hospital, St. Luke's Hospital and Menorah Medical Center; Missouri Chapter of the American Academy of Pediatrics; and Kansas City Academy of Family Physicians Children's Mercy Hospital, Kansas City
Nov. 17-18	**M.D. Day** Continuing Education, M.U. School of Medicine Columbia 65201
Dec. 9-16	**Symposium: Gynecology and Obstetrics** Postgraduate Medical Study K.U. School of Medicine, Kansas City, Kan. 66103
Jan. 19-20	**Ob-Gyn Conference** Continuing Education, M.U. School of Medicine Columbia 65201
Jan. 29-30	**Symposium: Gynecology and Obstetrics** Postgraduate Medical Study K.U. School of Medicine, Kansas City, Kan. 66103

Conference on "The Heart, 1972" to Be Held in Kansas City

A three-day program on "The Heart, 1972" will be presented at Children's Mercy Hospital in Kansas City on December 6-8 by the Kansas City Southwest Clinical Society, University of Missouri-Kansas City School of Medicine and Division for Continuing Education and Missouri Regional Medical Program.

Guest faculty will include Daniel L. Azarnoff, M.D., University of Kansas Medical Center; Leonard S. Driefus, M.D., Hahnemann Medical College of Philadelphia; Gottlieb C. Friesinger, M.D., Vanderbilt University School of Medicine, Nashville, Tenn.; Dwight E. Harken, M.D., Harvard Medical School, Boston, Mass.; Herman K. Hellerstein, M.D., Case Western Reserve University, Cleveland, Ohio; Suzanne B. Knoebel, M.D., Indiana University School of Medicine, Indianapolis; Richard H. Martin, M.D., University of Missouri-Columbia School of Medicine; and Abe Ravin, M.D., University of Colorado School of Medicine, Denver.

Advance reservations are requested and should be addressed to "The Heart, 1972," University of Missouri-Kansas City School of Medicine, 2220 Holmes St., Kansas City, Mo. 64108.

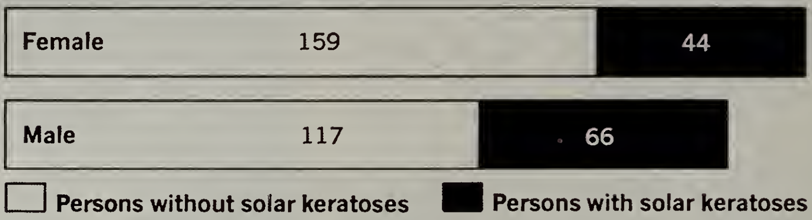
What it means to live and work i Tipton County, Tennessee

Persons who are white and over 40 have one chance in four of having solar keratoses... which may be premalignant

An epidemiologic study* conducted in Tipton County, Tennessee, revealed that 28.5% of white persons over 40 had solar keratoses; most had multiple lesions. Cluster sampling projected an estimated prevalence of 32.5% for white males and 19.5% for white females.

Though this is an unusually high percentage of affected persons, these lesions can occur in any white population, wherever people work or play out of doors.

Prevalence of solar keratoses in white persons over 40 in Tipton County, Tennessee



*Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey.

olar, actinic, senile keratoses

alled by many names, the typical lesion is flat
r slightly elevated, brownish or reddish in
olor, papular, dry, adherent, rough, sharply
efined; usually multiple lesions, chiefly on
xposed portions of the skin.

equence/selectivity of response

rythema in areas of lesions may begin after
everal days of therapy; height of reaction
nly in affected areas)* usually occurs within
vo weeks, declining after discontinuation of
herapy. Since this response is so predictable,
sions that do not respond should be biopsied
rule out the presence of a frank neoplasm.

osmetic results

osmetic results are highly favorable. Inci-
ence of scarring is low—important with multi-
le facial lesions. Efudex should be applied
ith care near the eyes, nose and mouth.

% cream-a Roche exclusive

nly Roche formulates the 5% cream...
igh in patient acceptability...high in clinical
fficacy, especially for lesions of hands and
rearms...economical.

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Multiple actinic or solar keratoses.
Contraindications: Patients with known hypersensitivity to any of its components.
Warnings: If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.
Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.
Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.
Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.
How Supplied: Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)aminomethane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.
Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).

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cream/solution

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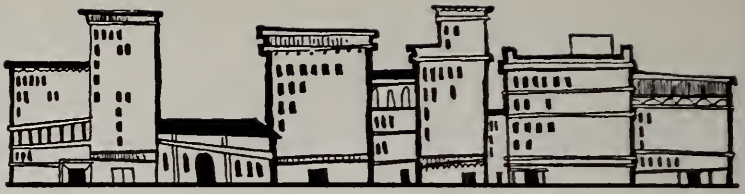
From the Medical Schools



WASHINGTON UNIVERSITY

David M. Kipnis, M.D., professor of medicine, delivered the British Diabetic Association's 23rd Banting Memorial Lecture at the University of Sussex, England on September 15-16. The program honors Sir Frederick G. Banting, the Canadian physician who 50 years ago discovered the hormone insulin and its use in treating diabetes, a disorder of the endocrine system resulting in excessive sugar in the blood and urine.

Dr. Kipnis

The British accolade was given in 1963 to *Paul E. Lacy,* M.D., Mallinckrodt Professor and head of the Department of Pathology. Doctor Lacy delivered the American Diabetes Association's Banting Lecture in 1970.

Doctor Kipnis also is director of the University's research center and the clinical lipid research center. In 1967 he received the American Diabetes Association's Lilly Award and the Endocrine Society's Ernst Oppenheimer Award. He is the only person to win the two prizes in the same year.

Arthur H. Stein, Jr., M.D., succeeded *Fred C. Reynolds,* M.D. as director of Washington University School of Medicine's Division of Orthopedic Surgery on October 1.

Doctor Stein received the M.D. degree from Washington University in 1948 and served his internship and residency at Barnes Hospital. He was appointed to the Medical School faculty as an instructor in orthopedic surgery in 1956, was promoted to assistant professor in 1958 and to associate professor in 1961. In 1964, he entered private practice, and was appointed to the clinical (part-time) faculty. He now returns to the full-time faculty, but will continue his practice of orthopedic surgery.

A $96,259 check received by the School of Medicine will be used to benefit a special category of future physicians—those who are likely to practice in medically-underserved areas.

The grant from the Robert Wood Johnson Foundation, Princeton, N. J., is specifically for financial support to women students, students from rural backgrounds and those from the black, Indian, Mexican-American and U. S. mainland Puerto Rican populations. *Dean M. Kenton King* said the Foundation has provided $10 million to assist students in these categories through grants to the nation's 108 medical schools and seven schools of osteopathy. Each institution received a base award of $46,500. Supplemental funds were determined by the school's percentage of the national total of such students enrolled in the 1971-1972 academic year.

Washington University School of Medicine's Department of Psychiatry has been awarded $1.2 million to establish a drug abuse research facility. The National Institute of Mental Health is providing $250,650 the first year of the five-year grant, according to *Theodore J. Cicero,* Ph.D., assistant professor of neuropsychology in psychiatry. Doctor Cicero is project director of the center, one of the first in the nation. Initial research will be on the effects of morphine and related narcotics on brain function.

UNIVERSITY OF MISSOURI-COLUMBIA

To expand the training of medical students in primary care, the School of Medicine has recently received special project grants totalling more than $200,000.

The Department of Health, Education and Welfare has announced that 19 grants to U. S. medical schools brought to almost $3 million the amount awarded during the first year of this new federal program. The Comprehensive Health Manpower Training Act of 1971 authorized grants to schools of medicine and osteopathy to enable medical students to receive part of their education under a preceptor in family practice, pediatrics or internal medicine, in rural and other shortage areas.

Under the direction of *Dr. A. Sherwood Baker,* chairman of the Department of Community Health and Medical Practice at the School of Medicine, all third- and fourth-year medical students serve a four-week preceptorship in a family practice setting. This program was established in Missouri in 1957. About 100 practicing Missouri physicians, most in small communities, participate in this teaching and training program for the medical students.

In addition to a $50,260 grant to the preceptorship program, the University of Missouri also received a special project grant of $145,870 for expansion of its Family Medicine training program. *Dr. Jack M. Colwill,* director of the Family Medical Care program at Missouri, said these funds will allow additional faculty members to be recruited. The Family Medical Care program, currently in developmental phases, is the training ground for young physicians specializing in family medicine.

Dr. Howard A. Rusk, one of the distinguished alumni of the University of Missouri who was honored on campus on September 29, delivered a lecture on rehabilitation medicine in the auditorium of the Veterans Administration Hospital.

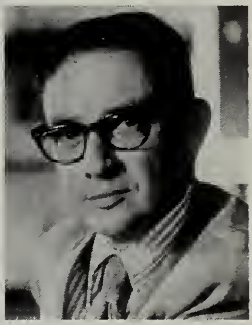
Now director of the Institute of Rehabilitation Medicine at New York University Medical Center, Doctor Rusk practiced internal medicine in St. Louis from 1926 to 1942. During World War II, as a colonel in the Medical Corps of the Army Air Force, he originated and directed the AAF convalescent-rehabilitation training program for which he was awarded the Distinguished Service Medal. He is internationally known for his continuing efforts in rehabilitation medicine and is currently president of the World Rehabilitation Fund, Inc.

Doctor Rusk is one of three medical graduates of the University who were recognized for their contributions to society at a banquet on the University campus. *Dr. Frederick C. Robbins,* Nobel Prize winner in 1954 for his work which led to the development of the Salk polio vaccine, and *Dr. Donald H. Geisler,* chief-of-staff at the Sac-Osage Hospital at Osceola, also received Distinguished Alumnus Awards.

ST. LOUIS UNIVERSITY

Dr. Theodore Cooper, director of the Heart and Lung Institute of the National Institutes of Health, was the recipient of the Alumni Merit Award in medicine at a luncheon held during Founders Week at St. Louis University. Doctor Cooper received the M.D. degree and the Ph.D. degree from St. Louis University in 1954 and 1956. He interned at the St. Louis University Group of Hospitals from 1954 to 1955 and was assistant resident in surgery at the St. Louis University Group of Hospitals from 1958 to 1959. He took postgraduate studies at the National Heart Institute at NIH and later joined the faculty at the St. Louis University School of Medicine.

Doctor Cooper left St. Louis University in 1966 to become professor and chairman of the Department of Pharmacology and professor of surgery at the University of New Mexico School of Medicine—a new school which was being erected. During this period, he went on leave to the National Heart Institute and after a year as associate director for the artificial heart-myocardial infarction program and chief of the Section of Cardiovascular Pharmacology of the cardiology branch, he was given his present appointment as director.


Dr. Cooper

Dr. Maurice Green, professor and director of the Institute for Molecular Virology at the School of Medicine, has been awarded a $1,200,000 research contract from the Etiology Area of the National Cancer Institute of the National Institutes of Health for a one-year period. The grant has a high priority. Purpose of the contract is to continue to search for virus specific genetic material in human cancer and studies on the mechanism of oncogenesis by RNA and DNA Tumor Viruses. Doctor Green participated in a postgraduate course on Membranes of Normal and Tumor Cells before the European Molecular Biology Organization at the Weizmann Institute of Science at Rehovot, Israel on August 29-September 6.

Dr. Robert H. Felix, dean of the School of Medicine, has announced that Grants-in-Aid for Research and Training in the Department of Biochemistry, headed by *Dr. Robert E. Olson,* total $1,315,131.50. Doctor Olson is Doisy professor and chairman of the Edward A. Doisy Department of Biochemistry. The grants represent funding from the National Institutes of Health, American Heart Association, Inc., Missouri Heart Association, The Hoffmann-La Roche Foundation and the National Science Foundation.

Francis B. O'Leary, Medical Center librarian, was the program chairman for a meeting of mental health librarians held at the Institute of Hospital and Community Psychiatry in St. Louis on September 25. University physicians participating in the panels were *Dr. Charles K. Hofling,* professor of psychiatry and *Dr. Joel F. Zeffren,* assistant clinical professor of internal medicine.

The Docent Teams— Kansas City General Hospital

E. GREY DIMOND, M.D.
Provost for the Health Sciences
University of Missouri-Kansas City

This new medical school and its closely related hospital, Kansas City General Hospital (soon to be the Truman Medical Center), are doing many things differently.

If we are right, we will set new patterns and other institutions will follow our path. Right or wrong, we need facts, measurements, data, records and words to show what we did, why we did it and the results. Again, whether we are right or wrong.

Two very large differences are: (1) We are selecting a broad spectrum of students from high school graduates to Ph.D.'s; (2) We are structuring a curriculum that assumes the human being and his problems are the main textbook and that basic science knowledge can be understood better from this approach than from isolated, discrete, temporally unconnected "preclinical" departments.

Major effort has gone into evaluating these two programs. We undoubtedly are still feeling our way and are overlooking some parameters. However, the combination of the Council on Selection, Council on Evaluation, Council of Docents, Council on Curriculum and the Office of Medical Education is as strong a commitment to evaluation as can be desired.

The checks and balances in these areas are substantial and visible. All of us, student and faculty, are participating, being heard, and having input. The first ten months in the life of the School have been a mammoth demonstration in group dynamics . . . some might even say . . . "ambulatory couch therapy."

Completely inseparable from the above is the laboratory in which much of this experiment is taking place—the Docent Teams at Kansas City General Hospital. The traditional medical school speaks of its laboratories as space in the preclinical departments where one learns anatomy by dissection, biochemistry by experiments from the manual, physiology from the dog. The basic premise of UMKC is that for the doctor of medicine the real laboratory is the human and his problems. As the basis for this study, we have evolved small, comprehensive general medicine teams, inpatient and outpatient, with all health professionals and all health students involved.

For these Docent Teams to be proper laboratories, it is essential that the health care service be first class by any standards.

How do you measure health care services? How can you judge if it is first class?

Dwight Wilbur, a past president of the American Medical Association, has put it in these words, "medical care must be (1) available, (2) economical, (3) high quality." Thoughtful reflection makes one agree with him. No one or two of these qualities is sufficient. High quality care, even if widely available but too expensive, is obviously inadequate and, in fact, by definition, not available. Poor quality care that is easily available and economical equally is not an acceptable definition. If we accept Wilbur's definition, the question becomes, "How do you measure these factors?" and if we at UMKC are sponsoring the Docent Teams as our prime example of a health care system, how do we evaluate our product?

Let's talk our way through the triad of requirements. Is medical care readily available at Kansas City General Hospital? I think we can get an A+ in that area. The 24-hour-a-day emergency room, the ready access to the Docent Clinic, the quick access to beds, the ability to give similar care regardless of what the patient can pay, all make it possible to say, "Yes, we have a medical care system that is readily available."

There is another quality which I suggest is included under the significance of "available." The doors of an institution may be open 24 hours a day, but if once inside the patient does not feel comfortable, does not find dignity, privacy and thoughtfulness (which includes promptness in being attended), then the service is not available because the patient is emotionally and physically excluded.

I think General Hospital scores well in these latter areas. The ability of the patient to return to his same Docent Team and be seen by his same nurse and same doctor is bona fide strength. The ability to be seen on an appointment basis, the increasing ability for nurse clinicians to give home follow-up, the very strong empathy of the students toward the patient, are all making the patient feel wanted and cared for. Thus, I think care is available in the Docent Units by any definition.

What about the question of "economics"? How does one judge this? Why allow health and medical care to have a price tag? How can one allow the right treatment or medical decision ever to be weighted by a dollar consideration? Should not all medical care be excellent; should there ever be anything less?

The answer is that there is never a world, nation, city, hospital or office in which there are unlimited resources. Visible or unseen, there are always priority judgments. Resources, whether dollars, space or manpower must be weighed and allocated. In a field such as medicine, in which manpower and resources are in short supply, the question of priorities in economy is always present. The so-called teaching hospital has always tended to minimize, even ignore, this real-life fact. Excellence was only insisted upon as the only correct stance, and what happened, of course, is that excellence was achieved but as the sacrifice of other needs. Students and house staff never heard of the need for judgment which consider excellence and economy and availability—until they have their own practices.

If one could show data that proved a direct correlation between improved care and numbers of tests and medication, then there would be strength in the argument that excellence is compromised if dollar accounting is required. However, within reason, there is no evidence that tests and prescriptions, by numbers and cost alone, are directly related to the quality of care. There is data instead that says that one of the faults of a teaching hospital is that frequently no discrimination is shown in testing, either in numbers or in cost of tests. The argument is made that the new physician must order many tests and try many medications in order to extend his own learning. This is hardly a valid justification.

It is obvious that the physician who orders the fewest tests and prescribes the least medications is only to be congratulated if it can be proved that his patients do well, in terms of their health and well being. As a place to begin, however, it seems safe to make this axiom: If two patients receive equal medical care, then the care costing the most money and doing the most manipulation to the patient's body must justify itself.

The object of this article by Doctor Dimond is to make clear the nature of the changes at Kansas City General Hospital and the relationship to the new University of Missouri-Kansas City School of Medicine.

This is an area in which it is easy to be misunderstood, and to be certain that the argument is valid, I will use two case histories:

(1) If patient A is in a hospital bed five days and goes home with results similar to patient B who was there ten days, then it seems reasonable to endorse the plan for patient A and challenge the plan for patient B.

(2) If patient A's medications cost $25, while patient B's cost $50, and patient A had tests costing $100 while B's cost $200, and they enjoyed equal medical improvement, then the care of Patient B needs to answer a challenge. That challenge is a medical audit which is separate from a statistical audit.

At General Hospital, we have now accomplished our first complete year of solid cost accounting on the Docent Units and feel comfortable that we are not only talking about economy of care but making an honest effort to get visible cost breakdown.

The term medical audit brings us to the third Wilbur term, "high quality." This judgment is made by peer review, by chart review, by daily analysis of the reasoning process through use of the problem-oriented medical record. Similar medical problems handled by Docent Team A and Docent Team B are compared. Decisions leading to prescribing medications are discussed, challenged, defended. Each new test is justified in relationship to the specific numbered problem. Each additional day of hospital care versus ambulatory care is justified. Every member of the health team asks every day, "Is this test justified for the patient's good, is this the best medication for the patient's good, is further hospital bed care good for the patient?" This is medical audit.

The three factors—available, economical and high quality—although inter-related, must be measured separately.

Available?

a. How many patients were admitted to beds?

b. How many patients were seen as outpatients?

c. How many patients did not keep their appointment, i.e., were not motivated to return for further help?

Economical?

a. How many bed days per admission?

b. What cost of test per patient day?

c. What cost of medications per patient day?

d. What cost in professional personnel?

High Quality?

a. Critical daily use of POMR, with group scrutiny.

b. Highly visible care, carefully monitored by the Docent.

c. Peer review of actual case handling.

d. Thorough post mortem review.

Summary

This new medical school declares itself an experiment in medical education based upon demonstration models of comprehensive team care medicines: The Docent Units.

Careful analysis of student selection, of curriculum, of faculty and of students is built into the operation. How do we equally document the quality of the care program which is their major experience?

To gather the solid data necessary to answer questions concerning the cost effectiveness of the Docent Team concept, we have established the Monthly Docent Audit. This provides a detailed breakdown on the statistical activity of each Team, answering well the questions of available? and economical?

The third all-important requirement, high quality, requires the methods of peer review and highly visible medical audit. Such reviews involve variables which are difficult to measure or quantitate.

The Problem Oriented Medical Record, backed up by daily bed-to-bed ward rounds, by teams of health care professionals, by the increasing significance of the empathy and sustaining challenge of the students, by highly visible medical audit seminars, by the rigor of clinical pathological conferences, validated by the statistical data of the monthly reports; in all these warrant the presence at Kansas City General Hospital of Wilbur's three factors.

Reprinted from
The Greater Kansas City Medical Bulletin
Aug. 15, 1972

Missouri U. Expands Patient Admission Policy

University of Missouri President C. Brice Ratchford announced the expansion of patient admission policy of the University Hospital and Clinics in Columbia on September 22. The new policy will be as follows:

> Any person requesting medical care, special study or diagnosis may be treated at the University Hospital and Clinics. Treatment may occur by direct request of a patient, by referral of a licensed physician, or through such other means as deemed appropriate under such rules and regulations as may be adopted.

During this last year, there have been three groups who have reviewed the policies and procedures of the University Hospital. They are (1) an internal group within the Medical Center itself, (2) a group of outside hospital consultants and (3) the Professional Health Science Review Team as a part of the Role and Scope review.

"All three groups agreed unanimously that the existing policy calling for treatment only through referral by physicians external to the Hospital inhibited many patients desirous of using the Hospital from seeking their care there. All three recommended this change in policy. We feel this is an important step in making the resources of the University more readily available to the citizens of the State," President Ratchford said.

"In that the University Hospital, The Clinics, and the medical staff are sophisticated health care resources with a significant degree of specialization, we assume that the majority of patients who come to us will still be referred by physicians. However, the new policy does permit people to contact individual physicians or Clinics at the Hospital directly if they so desire."

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Indications: Provides relief in severer grades of pain, on low codeine dosage, with minimal possibility of side effects. Its use frequently makes unnecessary the use of addicting narcotics. **Contraindications:** Hypersensitivity to any of the components. **Precautions:** As with all phenacetin-containing products, excessive or prolonged use should be avoided. **Side effects:** Side effects are uncommon although nausea, constipation and drowsiness may occur. **Dosage:** Phenaphen No. 2 and No. 3—1 or 2 capsules every 3 to 4 hours as needed; Phenaphen No. 4—1 capsule every 3 to 4 hours as needed. For further details see product literature.

CIII Phenaphen with Codeine is now classified in Schedule III, Controlled Substances Act of 1970. Available on written or oral prescription and may be refilled 5 times within 6 months, unless restricted by state law.

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Missouri Family Physicians to Meet on November 3-5

The Lodge of the Four Seasons at Lake Ozark will be the headquarters for the 24th Annual Scientific Assembly of the Missouri Academy of Family Physicians on November 3-5.

The theme of this year's Academy meeting will be "Family Medicine—A Medical Smorgasbord." The Education Committee chaired by John M. Haight, M.D., Kansas City, will present an outstanding scientific program which is both comprehensive and diversified and features a variety of subjects presented by top-notch speakers.

This year's meeting will be held without scientific exhibits. Instead, a number of pharmaceutical companies have provided educational grants in support of the scientific program.

The Drury College Jazz Ensemble will be the featured entertainment for the annual banquet at which time Walter C. Gray, M.D., St. Louis, outgoing president, will present the President's gavel to Ben Koon, M.D., Bolivar, who will be installed as the 24th President of the Missouri Academy of Family Physicians.

Activities for the wives also have been planned for the annual meeting. A special program for the ladies will include a luncheon on Saturday afternoon and an art demonstration by Mr. Buffy of the Lodge of the Four Seasons.

As a part of the Big Brother Program sponsored by the Missouri Academy, medical students from the University of Missouri-Columbia School of Medicine will be guests of their Big Brother at the Academy meeting.

All reservations for the 24th Annual Scientific Assembly should be made through the Missouri Academy Office, 208-A Professional Bldg., Springfield 65806.

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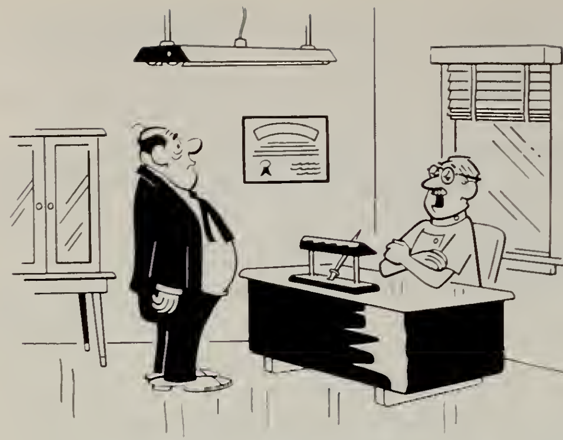

"Your new diet will be simple. If it tastes good, spit it out."

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION (ACT OF AUGUST 12, 1970: SECTION 3685, TITLE 39, UNITED STATES CODE)

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JEAN DUENSING, *Managing Editor*

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New Members

Gamaliel P. Abaqueta, M.D., 2525 Euclid, Kansas City, has become a member of Jackson County Medical Society. Dr. Abaqueta is a native of the Philippine Islands, received his preliminary education at Far Eastern University and his M.D. degree at the Far Eastern University in 1966. He specializes in anesthesiology.

David W. Bouda, M.D., Wornall Rd. at 44th, Kansas City, has become a member of Jackson County Medical Society. Dr. Bouda is a native of Omaha, Neb., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1972. He specializes in family practice.

Mahesh D. Chandra, M.D., Little Blue and Lee's Summit Rds., Kansas City, has become a member of Jackson County Medical Society. Dr. Chandra is a native of India, received his preliminary education at Hansraj College, University of New Delhi, and his M.D. degree at the Maulana Azad Medical College in 1966. He specializes in internal medicine.

Theodore C. De Feo, M.D., Wornall Rd. at 44th, Kansas City, has become a member of Jackson County Medical Society. Dr. De Feo is a native of Kansas City, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1964. He specializes in pathology.

David R. McConahay, M.D., 4320 Wornall Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. McConahay is a native of Holdredge, Neb., received his preliminary education at the University of Nebraska and his M.D. degree at the Northwestern University in 1965. He specializes in cardiology.

Satish K. Mehta, M.D., Jackson County Public Hospital, Rt. 17, Kansas City, has become a member of Jackson County Medical Society. Dr. Mehta is a native of India, received his preliminary education at the Hans Raj College and his M.D. degree at Maulana Azad Medical College in 1966. He specializes in internal medicine.

Harvey Thalblum, M.D., 6400 Prospect, Kansas City, has become a member of Jackson County Medical Society. Dr. Thalblum is a native of New York, N. Y., received his preliminary education at the University of Miami and his M.D. degree at the University of Florida in 1965. He specializes in radiology.

Bennie J. Throne, M.D., 6400 Prospect, Kansas City, has become a member of Jackson County Medical Society. Dr. Throne is a native of Pittsburg, Kan., received his preliminary education at the Kansas State College and his M.D. degree at the University of Kansas in 1964. He specializes in therapeutic radiology.

In Memoriam

Smith, Robert S., M.D., St. Louis, a graduate of St. Louis University, 1963; member of St. Louis Medical Society; age, 39; died Aug. 28, 1972.

Schattyn, John Martin Thomas, M.D., St. Louis, a graduate of St. Louis University, 1927; member of St. Louis County Medical Society; age, 70; died Aug. 31, 1972.

Fulkerson, Wilbur E., M.D., Higginsville, a graduate of Washington University, 1951; member of Lafayette-Ray County Medical Society; age, 55; died Sept. 3, 1972.

Jorstad, Louis H., M.D., St. Louis, a graduate of Washington University, 1924; member of St. Louis Medical Society; age, 76; died Sept. 9, 1972.

Robinson, G. Wilse, Jr., M.D., Kansas City, a graduate of Pennsylvania University, 1927; member of Jackson County Medical Society; age, 71; died Sept., 1972.

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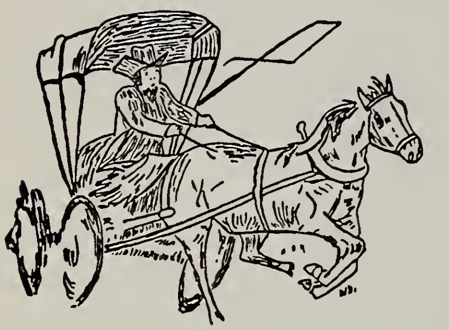
Missouri Medicine in Review



FORTY YEARS AGO

The medical profession lost one of its outstanding members in the death of Nathaniel Allison, M.D., who was born on May 22, 1876 and died on Aug. 30, 1932. He was the leading orthopedist in the United States and an important factor in most of the organizations which are responsible for the advancement of medical knowledge, particularly along the line of his chosen specialty. He successfully held the chair of orthopedic surgery in three of the leading medical schools situated in three of the large medical centers of the United States and was sought by others. He was the chief orthopedic consultant in the A.E.F. and directed the policy of this branch of the service. He was honored with the award of the Distinguished Service Medal by our government.

Dr. Richard L. Sutton, Jr., Kansas City foreign correspondent of the *Jackson County Medical Journal,* has been made a licentiate of the Royal College of Physicians and Surgeons of Edinburgh, having passed the examinations of the British Conjoint Medical Board. Since last January, Doctor Sutton has been studying in Edinburgh and on the Continent.

TWENTY-FIVE YEARS AGO

The memory of the late Katharine Berry Richardson, M.D., Kansas City, was honored by a program and unveiling of a plaque in the central lobby of Children's Mercy Hospital in Kansas City on the anniversary of its founding 50 years ago. Doctor Richardson and Dr. Alice Graham, who helped her, were founders of the hospital.

The MSMA Council met at the Coronado Hotel in St. Louis on Sept. 27-28, 1947. Doctor Hyndman reported the Association in sound financial condition and his report was accepted. Mr. O'Brien read letters from the AMA concerning national health insurance which had been sent to governors of various states and stated that this subject, without doubt, would be a political issue in the next national election and would appear in party platforms. Doctor Peterson invited the Council to hold its next meeting in St. Joseph. The invitation was accepted.

TEN YEARS AGO

The 50 million-member mark was surpassed by the 76 Blue Shield Plans located in North America in their enrollment as of June 30, 1962, the National Association of Blue Shield Plans announced recently. Total membership in Blue Shield at the end of June reached 50,047,782 as a result of a net gain of 795,160 new members during the second quarter of 1962. The June, 1962 figure represents an increase of almost 2 million members over the June, 1961 enrollment mark.

Early in August, the star of brigadier general was pinned on Oscar P. Hampton, Jr., M.D., St. Louis, in ceremonies in the office of Maj. Gen. Curtis J. Herrick, commanding general of the Eleventh United States Army Corps in St. Louis.

S. E. Senor, M.D., St. Joseph, was named to the board of directors of the Chamber of Commerce of St. Joseph.—Victor B. Buhler, M.D., Kansas City, was named president-elect of the College of American Pathologists at its annual business meeting in Chicago on September 5.

The staff of Deaconess Hospital in St. Louis has elected William L. Macon, Jr., M.D. as president. Other officers elected were James Y. Griggs, M.D., president-elect; William G. Arney, M.D., vice-president; and Frederick W. Martin, M.D., secretary-treasurer.

Alumni contributions to St. Louis University School of Medicine in 1961 were the highest among the nation's 86 medical schools, according to the AMA. Graduates gave $199,499 last year for medical education. Contributions were received from 54% of the medical alumni.

Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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MSMA NEWS

ROUND - UP

December, 1972

AMA's Dr. Hoffman speaks at banquet in Springfield

C. A. Hoffman, M.D., President of the American Medical Association (center in above photo), talks with Robert D. Duncan, M.D., President of the Greene County Medical Society (right), and Walter T. Gunn, M.D., President of the Missouri State Medical Association, during the joint meeting of the Greene County Medical Society-Eighth Councilor District meeting November 16, in Springfield.

Dr. Hoffman, who came to Springfield to take part in Drury College's 100th Anniversary Celebration, was the banquet speaker at the joint meeting. Approximately 250 Greene County, Eighth District and MSMA officers and delegates attended the affair.

While fielding questions from the floor, Dr. Hoffman commented on such subjects as physician distribution, medical education and physician assistants.

Dr. Hoffman said his visits to Russia and several European countries pointed out that physician distribution is a problem in all countries - even in the state-operated Soviet system. The tendency in foreign nations, as it has been in the U.S., is for physicians to situate in the more densely populated areas.

Dr. Hoffman expressed some concern that many of the schools in the U.S. are shortening the number of years required to gain a medical degree. "At the same time we are shortening education requirements," stated Hoffman, "the Soviets and other countries are requiring an increased number of years of medical education."

Dr. Hoffman also said that the U.S. should use caution in the area of physician assistants. He warned that training of PAs could result in a second and lower level of medical care. He said it could be difficult to decide exactly what a physician assistant is qualified to handle.

Along with Dr. Hoffman, Dr. Gunn, Dr. Duncan and Howard J. McAlhany, M.D., Eighth District Councilor, spoke at the meeting. Walter A. German, M.D., was program chairman.

New influenza virus may reach epidemic proportions in Missouri

A new influenza virus, referred to as the ngland strain of A-2 influenza virus, has been etected and the Missouri Division of Health resees the probability of the disease reaching idemic proportions in the U.S. and in Misuri this year.

In a release issued by the Division of Health, the virus was described as "relatively different from the Hong Kong strain, but not as different from Hong Kong as Hong Kong was from Asian influenza."

(continued on next page)

New influenza virus

(continued from page 1)

The currently available influenza vaccine has type A-2 and type B antigens and is expected to give some protection from the new England strain. The use of vaccine is strongly recommended for persons in high risk groups. This is the first time in several years that the Public Health Service has made such a strong recommendation regarding influenza vaccine usage.

The disease produced by the England strain has primarily been in military populations and its true epidemic potential is difficult to estimate. It has already been detected in widespread parts of the world. Existing data are inadequate to generalize whether persons immunized with the current vaccine will be protected from the new virus. It would take months for a new vaccine to be produced and distributed and by that time the present influenza season would be past its peak. There are apparently no manufacturers contemplating production of vaccine with the England strain at the present time.

The recommendation of the Division of Health is that a person whose life or critical community function would be threatened by the occurrence of influenza illness should be protected either with a primary series of two doses subcutaneously at six- to eight-week intervals or a single subcutaneous booster dose if they have previously received one or more doses of vaccine since 1969.

Those persons at high risk include persons of all ages with chronic debilitating conditions such as congenital and rheumatic heart disease especially with mitral stenosis and arteritis, sclerotic, and hypertensive heart disease, particularly with cardiac insufficiency. Also, those with chronic, bronchial, pulmonary diseases such as asthma, chronic bronchitis, cystic fibrosis, bronchiectasis, emphysema, and advanced tuberculosis. And finally, those with diabetes mellitus and other chronic metabolic disorders. Other older aged persons with insipient or potentially chronic disease affecting the cardiovascular and bronchial pulmonary systems should also be considered for annual immunization.

It was estimated that during the past influenza season in Missouri, there were approximately 1,000 "excess" deaths which suggests even the relatively mild influenza season in Missouri has a measurable and significant impact on mortality from a variety of contributing causes.

Physicians are urged to report by number to the Division of Health through local county or district health agencies at weekly intervals when the influenza illness begins to occur in their area.

Proposed reclassification of narcotic-containing cough syrups supported

Reclassification of narcotic-containing cough preparations as prescription medications would strengthen efforts to prevent drug abuse in Missouri, says Herbert R. Domke, M.D., State Health Director.

Under present Missouri and federal regulations, explains Ernest L. Sjoblom, director of the State Bureau of Narcotics and Dangerous Drugs, cough syrups containing codeine are "exempt narcotics," and a medical prescription is not needed to purchase them. The pharmacist is only required to obtain the customer's signature.

Sjoblom says he has written to the federal Food and Drug Administration supporting a proposal that prescriptions be required. Studies show that young people often use narcotic-containing cough syrups as a starting point in drug abuse and drug addicts may substitute the syrup when more potent drugs are not available.

R. E. Bregant, M.D., of Jefferson City, who represents the MSMA on the State Controlled Substances Advisory Committee, says the committee is in favor of the proposed reclassification.

Dr. Domke says it is not known when the regulation change will become effective because of the legal steps involved.

Cox to chair state board

Lester L. Cox, Springfield businessman, has been elected chairman of the Missouri Board of Health for 1972-73.

Cox, a member of the state board since 1968, succeeds J. D. Chastain of Des Peres.

William D. Bradshaw, M.D., of Clinton, was elected vice chairman and Ted O. Lloyd of Jefferson City, was elected secretary.

Other members of the board are William A. Knight, Jr., M.D., of St. Louis; Al Fulenwilder of Jackson; J. S. Denslow, D.O., of Kirksville, and Chastain.

Congress eying insurance

Senate Majority Leader Mike Mansfield (D-Mont.), according to United Press International, has indicated that national health insurance would be the highest priority of the 93rd Congress.

Mansfield was quoted as saying that with the costs of medical care and hospitals skyrocketing, a national health insurance program is absolutely necessary.

Special Article

Progress Report on Cancer Commission Programs

By

JOHN S. SPRATT, JR., M.D., M.S.P.H.

Director, Cancer Research Center
Chief Surgeon, Ellis Fischel State Cancer Hospital

The following article is a report to the medical professions of Missouri concerning developments at the Ellis Fischel State Cancer Hospital-Cancer Research Center complex during the past year. Doctor Spratt outlines steps for establishing an effective cancer control program and lists recommendations of the Board of Health to the Missouri Legislature. He also describes progress at both institutions, including building renovation, staff additions and service improvement.

THE PURPOSE of this article is to inform the profession of several developments at the Ellis Fischel State Cancer Hospital (EFSCH) and Cancer Research Center (CRC) during the past year that affect the cancer program in Missouri.

First, the newly appointed Board of Health asked the Cancer Commission to assume responsibility for community cancer control in Missouri in addition to its continued supervision of the professional policies at the EFSCH. The Board further asked the Commission to name a member of the Cancer Hospital staff as coordinator for cancer control. The Commission asked the Chief Surgeon to accept that position in addition to his continued obligations as Chief Surgeon; acceptance was tentative.

The coordinator pointed out that Missouri has never had a comprehensive cancer control program and that neither staff nor budget exists for such a program. He further noted that it would be impossible to develop a publicly useful and effective cancer control program unless the following basic steps were taken: (1) the status and effectiveness of cancer control programs in all states should be surveyed and evaluated; (2) the Board of Health and Cancer Commission should agree jointly upon a set of Cancer Control Program objectives; (3) a cancer control program plan relevant to the resources, objectives and needs of Missouri should be developed and approved; (4) a time and budget schedule should be developed for program implementation; and (5) a system of program evaluation should be agreed upon in advance to insure that the program would remain effective and relevant.

At its meeting on July 9, 1972, the Cancer Commission approved implementation of this effort by adoption of the start of a policy and procedure manual for program planning and administration. Initially, the program staff contains the following elements: administration and planning, state tumor registry and consultative and program support from the staff of the EFSCH. Elements of a state cancer library, a carcinogen evaluation section and an educational unit exist that can be integrated into the cancer control program as it evolves.

The Board of Health will request $100,000 from the legislature during the coming year for survey, evaluation and program planning and for support of some existing cancer control activities.

Second, the CRC is moving ahead with its program development which will include the addition of laboratory and teaching space and staff augmentation requisite to developing a more comprehensive cancer center. Details of this program were presented to the Council of the Missouri State Medical Association on June 4, 1972.

Third, the Ellis Fischel State Cancer Hospital has undergone considerable internal remodeling, particularly in the outpatient clinic, under the able administration of Mr. Virgil Yates. Dr. Reginald Pugh, chief of the medical staff this year, has worked in close collaboration with Mr. Yates to see that medical services continued without interruption during the remodeling. The legislature also simplified the admitting policy this year permitting direct referral, bypassing the county court for those patients not wishing to claim indigency.

Dr. James Thomson joined the staff during the past year as the new chief of radiotherapy. His arrival has brought both radiation physics and radiation biology support to his section. He is now planning for the acquisition of a linear accelerator, which has been long-needed for the complicated cancer problems undergoing radiotherapy treatment.

Dr. Robert Glass returned from private practice to rejoin the surgical service at the EFSCH. Dr. Oscar Guerra, a prosthodontist trained at M. D. Anderson Hospital, is in the process of setting up a much needed dental service at EFSCH. Good prosthodontics and maxillofacial dental reconstruction as well as certain highly specialized categories of preventive dentistry have become essential in the management and prompt rehabilitation of cancers of the head and neck.

In all, the entire center has become more comprehensive in its nature during the past year. The staff looks forward to continued close collaboration with the medical professions in the areas of service, research, education and demonstration.

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asthma. Hemolysis, frequently dose-related, may oc
cur in glucose-6-phosphate dehydrogenase-deficien
patients. Maintain adequate fluid intake to preven
crystalluria and stone formation.
Adverse Reactions: *Blood dyscrasias:* Agranuloc
tosis, aplastic anemia, thrombocytopenia, leukopenia
hemolytic anemia, purpura, hypoprothrombinemia a
methemoglobinemia; *Allergic reactions:* Erythem
multiforme (Stevens-Johnson syndrome), generalize
skin eruptions, epidermal necrolysis, urticaria, seru
sickness, pruritus, exfoliative dermatitis, anaphyla
toid reactions, periorbital edema, conjunctival an
scleral injection, photosensitization, arthralgia and a
lergic myocarditis; *Gastrointestinal reactions:* Nause
emesis, abdominal pains, hepatitis, diarrhea, an
rexia, pancreatitis and stomatitis; *C.N.S. reaction*
Headache, peripheral neuritis, mental depressio
convulsions, ataxia, hallucinations, tinnitus, verti
and insomnia; *Miscellaneous reactions:* Drug feve
chills and toxic nephrosis with oliguria and anur
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curred. Due to certain chemical similarities with so
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The Council Reports

Meeting of Sept. 16-17, 1972

James C. Cope, M.D., Columbia, Chairman, called the meeting to order. Those present were Drs. Cope; Walter T. Gunn, St. Louis; E. A. Stricker, St. James; John I. Matthews, Jefferson City; Gerald L. Miller, Kansas City; Charles R. Gulick, St. Louis; John N. Martin, St. Joseph; Lysle M. Bach, Hannibal; Max S. Franklin, St. Louis; Louis P. Hetlage, Troy; William D. Bradshaw, Clinton; R. Allen Chandler, Kansas City; Howard J. McAlhany, Springfield; Claude W. Cooper, Thayer; Eugene T. Hansbrough, Poplar Bluff; J. Loren Washburn, Versailles; Stanley S. Peterson, Springfield; Arthur W. Neilson, St. Louis; Hector W. Benoit, Jr., Kansas City; William D. Mayer and William C. Allen, Columbia; M. Kenton King, Samuel Guze, George Thoma, St. Louis; R. K. Noback, Kansas City; Herbert R. Domke, Jefferson City; George Ladyman, Poplar Bluff; Mrs. Keith D. Jones, Warrensburg; Mrs. Charles Willman, St. Joseph; Messrs. John W. Noble, Kennett; John R. Smart and William Tetley, Fayette; Allen D. Smith, Kansas City; Hollister S. Smith, St. Louis; Gary L. Schnedler, Springfield; E. Mark Halvorson, Jefferson City; Ray McIntyre, Tom P. Fox, Royal O. Cooper and C. C. Swarens, Jefferson City, Staff.

Chairman Cope called the meeting to order and requested approval of the minutes of the June 3-4 Council Meeting. On motion of Dr. Gunn, duly seconded, the minutes were approved as distributed.

Dr. Cope then asked Dr. King of Washington University to introduce his guest. Dr. King introduced Dr. Samuel Guze, the new Vice-Chancellor for Medical Affairs of Washington University.

REPORT OF THE EXECUTIVE SECRETARY

Mr. McIntyre indicated that Mr. Cooper has been named to head one of the sections of the United Community Fund (UCF) campaign in Jefferson City.

Mr. McIntyre stated that flowers had been sent to the funerals of Dr. C. E. Burford, a Past-President of MSMA; Dr. Martyn Schattyn, a Past Vice-President of MSMA; and Dr. Wendell Scott. A resolution also was introduced into the AMA House of Delegates relative to Dr. Scott.

Mr. McIntyre said that at the last meeting of the Council, staff was asked to look into different possibilities for a meeting place in 1974 for the annual session, which is scheduled to be held in Kansas City. He asked Mr. Fox for a report. Mr. Fox stated that he had checked into the Alameda Plaza as a possible site and stated that the maximum number of guest rooms available for booking a convention would be 225. Last year, the MSMA occupied approximately 270 rooms. He further reported that Alameda Plaza did not have meeting room space required for the annual session. Mr. Fox reported that tentative dates have been set with the Crown Center and the Muehlebach Hotel. MSMA is holding the dates of April 4-7, 1974. It was pointed out that Southwest Clinical Society will hold its meeting at Crown Center in the fall of 1973. Mr. Fox asked the Council for approval to confirm the dates at one of the two places.

Dr. Chandler moved that the dates of April 4-7, 1974 be confirmed at the Crown Center in Kansas City for the 116th Annual Session. Motion was seconded and carried.

Mr. McIntyre stated that for the coming year, at the suggestion of the Council, MSMA is offering exhibitors a choice of either exhibiting or in lieu of that, giving a cash grant in the amount of the cost of an exhibit space. Mr. Swarens then reported that as of September 14, we have assigned ten exhibit spaces and three companies have indicated their intention to give cash donations in lieu of an actual exhibit space.

Mr. McIntyre asked that an additional item be placed on the agenda. He indicated that representatives from Central Methodist College in Fayette would present a proposal regarding a Community-Based Educational Manpower Project in Rural Mid-Missouri.

The Chairman then introduced Mr. Lee Mortenson to the Council. Mr. Mortenson is with the Department of Field Service of the AMA.

REPORT OF COUNCILORS

District #10—Dr. Hansbrough said that he reported at the last meeting regarding their local extended care facility. He stated that it is closed at the present time for repairs and feels that it probably will not open again. Apparently, the requirements of law relative to these facilities are quite demanding. He indicated that he understands these closings are happening in other parts of the state. He said that he feels this will bring on other problems. Some patients may now have to be in hospitals longer where there is no extended care facility.

Dr. Hansbrough stated that he would like to give a second report on the federal HMO that was going into Lilbourn, Mo. He reported at the previous Council meeting that the Bootheel CHP Agency had approved this. He indicated that the structure of this organization has changed. A St. Louis group has taken over this project. After this restructuring, the Bootheel CHP Agency then asked to review it again, and was refused. They apparently have the feeling that the way they will get the patients seen in the HMO is by paying the UCR fees to see the people in the HMO, as Missouri physicians get paid very low fees from Medicaid and most of these patients are Medicaid patients. Dr. Hansbrough indicated that the Executive Secretary of the Bootheel CHP felt sure that this project got through CHP in a form which would today be rejected.

District #1—Dr. Martin reported that someone in his district was looking for an anesthesiologist and found one from Canada who was licensed in one of the Carolinas. She was board certified in anesthesiology. She could not get a license in Missouri without taking the examination. She immediately applied to Indiana and was granted a license by reciprocity. Dr. Martin voiced his concern about this.

Dr. Martin called the Council's attention to the Inter-

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professional Code which was sent out recently and indicated that his Society has accepted this Code. He stated that he felt that if the local medical societies accept this code, it also should be accepted by the local lawyers associations.

District #9—Dr. Cooper indicated that his district plans to have a Councilor District meeting soon, but definite plans have not been made as yet.

District #8—Dr. McAlhany reported that since the ruling on the Curteman Case, the ophthalmologists in his area have been very concerned. He said that he understood the ophthalmologists are setting up an independent organization to consider problems involved.

Dr. McAlhany reminded the Council of the November meeting in Springfield when Dr. Carl Hoffman, President of AMA, will attend. He stated that they would like to have a cocktail party for Dr. Hoffman with the Council and Officers present. He stated that he felt this is a state function and asked the Council to assist financially. This request was approved.

Dr. McAlhany said that Greene County has an M.D. physician running for Coroner in November.

He reported that they have petitioned the General Assembly for a statewide Medical Examiner System. It was suggested that this might be done first on a pilot basis. Dr. McAlhany stated that if they do get the M.D. for coroner, they undoubtedly will try to set this up as a pilot project in Greene County.

Dr. McAlhany said that the judge recently ruled in favor of the "Singing Doctors of Greene County" against the IRS.

District #3—Dr. Franklin said that he recently attended a meeting of the Council of St. Louis Medical Society where several things were discussed. Two plans for physician assistants were discussed. One was from Dr. Hofstetter for the St. Louis State Hospital for psychiatric nurse assistants. This was approved by the St. Louis Medical Society Council. Dr. Franklin stated that they had suggested to them that local matters should be handled locally and not by the state. Another plan presented by Dean Wochner for physician nurse assistants was quite extensive. A committee was appointed to study this proposal.

Dr. Domke reported that a short time ago there was some discussion regarding the development of an OB nurse assistant and an Attorney General's opinion was sought. An adverse opinion was received from him. Dr. Domke indicated that he felt this might have some bearing on the plans that St. Louis Medical Society is reviewing. Dr. Miller said that he felt these things should be brought before the state organization so that there can be some uniformity. Dr. Hetlage stated that the reason for the development of a concept of what these people may or may not do is to stop the development of a patchwork type of physician assistant. He said he felt this should be brought back to the Council for consideration and input rather than on a local basis.

Dr. Franklin stated that it might be worthwhile if a copy of this proposal from Dean Wochner be sent to each member of the Council. Dr. Cope indicated that the Council would await the results of the St. Louis Medical Society committee action on this.

St. Louis County and St. Louis Medical Societies have appointed a committee regarding the building of one building for the use of both medical societies. Committees have been appointed for changes in the bylaws to accommodate this. Committees have been appointed to study the use of the building by both organizations. Dr. Franklin said that more than 125 County members have joined the St. Louis Society for Medical and Scientific Education.

An Insurance Liaison Committee of both the city and county headed by Dr. Kinsella, HIC and the metropolitan hospital association have launched a campaign on the conservation of the health care dollar. The plan is to launch new materials every three months to (1) alert the physicians, (2) the patients or consumers and (3) hospital employees to help with the conservation of the health care dollar.

Dr. Franklin indicated that he wanted to endorse what Dr. McAlhany said about the ophthalmologists. He stated that he was informed that they are forming a new organization because their present bylaws state that they cannot become involved in legislative matters. Apparently, they are forming this new organization for possible legislative action.

District #7—Dr. Chandler reported that Jackson County Medical Society approved in principle a treatment program for alcoholics.

He stated that some of his members are extremely upset with the Board of Healing Arts, particularly regarding certain policies. He stated that industry in the area is having a difficult time with absenteeism. There are frequent abuses. Investigation has shown that workers go to certain physicians and secure a sick leave slip certifying that they are sick. This is costing hundreds of thousands of dollars each year. Representatives of the Board of Healing Arts have had meetings with these people. They have investigated and found that such a thing does exist. However, they have taken no action, at least not to the satisfaction of the local physicians.

Dr. Chandler reported that recently there was a seminar on acupuncture in Kansas City. The fee for attendance was quite high. However, the seminar was well attended. Dr. Chandler indicated that he felt some decision should be forthcoming from the Board of Healing Arts stating whether acupuncture is or is not the practice of medicine.

Mr. Cooper indicated that all the information we had on acupuncture had been sent to their office prior to the August Board meeting, suggesting that they take the New York approach which declared acupuncture the practice of medicine.

Dr. Chandler stated that he felt many physicians are not knowledgeable about what the AMA does for them and Jackson County has been running a series of articles regarding activities of the AMA. He indicated that he felt this is something societies who have bulletins should look into, as this is a good form of communication.

District #4—Dr. Hetlage reported that the majority of his Councilor District work at its recent meeting was done on input to the AMA. He indicated that he feels his delegates to MSMA are contributing significantly and his meeting with them prior to Council meetings works very well in his district.

Dr. Hetlage said that they discussed the matter of emergency hospital services, as recommended by the Sub Task Force on Emergency Health Care Services, and the problems inherent in categorization of hospitals and which class certain hospitals will come under. Possibly, the hospitals should be asked to categorize themselves. Dr. Hetlage reported that they did endorse this plan.

He stated that they discussed the Negotiation of Professional Fees and have some questions about it. He reported that they are in favor of this, but do not want to create another problem such as tock place with the HCF.

He reported that family planning was discussed, but this would be reported in the Ad Hoc Committee presentation.

Dr. Hetlage stated that his district is pleased with the input they have had into Blue Shield in St. Louis. However, there is no input into Blue Cross whatsoever.

He thanked the AMA Delegates for introducing the two resolutions from his district at the AMA San Francisco meeting.

He asked if there is any possibility that his local delegates and alternates might receive copies of the weekly *AMA Newsletter* (green sheet).

Dr. Hetlage asked the Chairman to call an Executive Session to discuss several items of concern in his particular district.

District #6—Dr. Bradshaw said that he did not have a report at this time, but requested time later.

District #5—Dr. Cope reported that he had received a call from Dr. Schertz indicating that some ophthalmologists in the state are proposing legislation relating to physician assistants. Dr. Cope stated that he felt a stand must be taken regarding acupuncture and the Council must decide what to do in regard to the ophthalmologists' proposals.

Dr. Gunn again introduced the subject of things being considered at the local level prior to their being approved at the state level. It was pointed out that when federal grants are involved, they usually require both local and state approval.

ACUPUNCTURE

The Chairman then indicated that he felt a stand should be taken on acupuncture and called for discussion.

Dr. Matthews stated that it is his understanding that in the state of New York, the State Board declared acupuncture the practice of medicine. He indicated that he felt the Council might propose that the Missouri Board of Healing Arts proceed along these same lines. Dr. Cope stated that he is of the opinion that the actual puncturing of a human body with a needle is the practice of medicine.

Following further discussion, on motion of Dr. Gunn, duly seconded, the matter of acupuncture was referred to the Commission on Continuing Education and Health Manpower for study and a report back to the Council.

Discussion then was held regarding Dr. Martin's concern over licensing procedures of the State Board. It was pointed out that we do have reciprocity with various states, but on an individual basis. Dr. Martin indicated that he would check into this matter a little further and get more of the details.

Discussion followed regarding the Board of Healing Arts' apparent lack of investigation and action against certain physicians licensed in Missouri. It was indicated that licensure and activities of the State Board is of sufficient importance that possibly a special meeting of the Council with the State Board might be worthwhile with an agenda planned ahead of time so that some mutually satisfactory answers might be worked out. It then was suggested that possibly our Executive Committee should meet with the State Board at least once annually.

After brief discussion, it was moved and seconded that the President of the State Board of Healing Arts or his Board representative be invited to future Council Meetings. Motion carried.

PHYSICIAN ASSISTANTS

The Chairman then called for discussion regarding the ophthalmologists and physicians' assistants.

Dr. Chandler said that he was invited to a meeting which the ophthalmologists held. He stated that they feel they have many problems since the Curteman ruling. Many of their assistants do preliminary studies that free the M.D. for more diagnosis and treatment. They feel that some new legislation is needed and are drafting a bill with legal help. He said they asked him to bring this matter to the Council because they want to work closely with the MSMA. Dr. Chandler reported that the ophthalmologists thought they could tack their bill onto our physician assistants bill, which they indicated was coming up in January and being worked on now. Dr. Chandler stated that he told them he was not aware of any bill being worked on at the present time, but, in fact, he understood we were going to wait until we had more information from the AMA.

Dr. Hetlage stated that his contact with Dr. Schertz on this matter was one phone call. Dr. Hetlage said that MSMA did pass a resolution favoring such legislation, but we really need more information and it obviously is getting more complicated.

Dr. Cope suggested that possibly a letter should be sent to them indicating that at the present time there is no legislation regarding physicians assistants being considered and that they should keep us informed of their activity.

Dr. Peterson indicated that it was his understanding that the AMA has recently come out and okayed some training programs for medical assistants.

Following further discussion, motion was made by Dr. Gunn and seconded that the Chairman compose a suitable letter to be sent to Dr. Schertz and that formal action on this letter be taken on Sunday morning. Motion carried.

BUDGET COMMITTEE

Chairman Cope appointed the following Budget Committee for 1973: Drs. Gulick, Gunn, Stricker, Cope, Chandler, Martin.

COMMITTEE ON ARRANGEMENTS

The following physicians were named by the Chairman of the Council to the Committee on Arrangements for the 115th Annual Session: Drs. Franklin, Hetlage and Bach.

MSMA SPONSORSHIP OF TOURS

The Chairman then named the following members to study the various tour material for the fall of 1973 and suggest which one MSMA should sponsor: Drs. Martin, Chandler and Hetlage. This suggestion is to be brought to the Council Meeting on Sunday morning.

PRESIDENT'S REMARKS

President Gunn reported that he had received correspondence from Dr. Mebust of the Kansas City Urological Society asking that they be the spokesman for the urologists in the western part of the state instead of the Federation of Missouri Urologists.

Dr. Cope stated that the Federation meets once each year at the site of the MSMA Annual Session. Its membership is statewide. The Kansas City Urological Society has members as far west as Colorado. Dr. Cope stated that at their last meeting in April in Kansas City, the Federation voted to go along with the Health Care Foundation. Dr. Cope indicated that he would write suggested letters to go to Dr. Mebust and the President of the Federation for Council approval on Sunday morning. Dr.

Benoit indicated that the HCF had not received word from the urologists indicating they would participate on review panels.

Dr. Gunn reported that he had received a letter from Dr. McCallister of Kansas City regarding problems in computer interpretation of electrocardiograms. He feels that we should go on record as opposing it. He indicated that he would be happy to meet with anyone to discuss this. On motion of Dr. Gunn, duly seconded, it was recommended that this matter be sent to the MSMA Commission on Continuing Education for study and hearings. Motion carried. The motion was then amended to include that it also be sent to Jackson County Society for study.

Dr. Gunn received letters from HEW regarding our Resolutions #16 and #25 which we sent to them. In response to Resolution #16, "Support for Fee for Service Medical Care," they indicated that the Administration's recommended health care bills provide for continuing support of fee for service practice. In reply to Resolution #25, "Charges Imposed by Immediate Relatives," they indicated that they couldn't do anything about this. This would take legislative action.

The President stated that Dr. Miller and Dr. Paul Young have been named as official representatives of MSMA to attend the AMA Continuing Medical Education Conference on October 24-26 in Chicago. Dr. Gunn indicated that a letter had been received from Dr. Berry of Kansas City volunteering to serve as a MSMA representative inasmuch as he was going anyway. He was appointed as a third MSMA representative to attend this CME meeting. Dr. Gunn stated that Mr. McIntyre also would attend this meeting.

Dr. Gunn indicated that at our suggestion, Dr. G. Donald Shull of Jefferson City was named by Governor Hearnes as a member of the Missouri Board of Nursing Home Administrators. Dr. Shull replaces Dr. W. A. Bloom on the Board.

We have written to the AMA Board of Trustees asking them to send a member of the Board to the 115th Annual Session. However, we have not had a reply to this.

Dr. Gunn reported that Dr. Hollweg had received a letter from AMPAC commending him upon our support of AMPAC.

The President indicated that the Food and Drug Administration has stopped the shipping or selling of the Diapulse Machine in interstate commerce.

Dr. Benoit, Chairman of the Health Care Foundation of Missouri, then gave the following report regarding the Foundation. He gave a statistical review of the membership. The Foundation has enrolled voluntarily 2,555 physicians in the state of Missouri—2,019 M.D.'s or 55.7% of the MSMA membership and 536 D.O.'s or 63.4% of their organization—59.5% of the two groups. Dr. Benoit stated that when the Foundation was first formed, they wanted to have at least 60% participation, but now feel that 80% is needed if they are going to get the type of support they want.

The HCF Board, at its June meeting, indicated that the HCF should make its services available to hospitals in whatever role they felt would be helpful. A letter was sent to the hospitals explaining this. It was sent to 98 hospitals with less than 100 beds and 96 hospitals with more than 100 beds. Of this number, replies were received from 49, of which 25 indicated they did not foresee a need for such service. Twelve hospitals with less than 100 beds expressed a keen interest and six hospitals with more than 100 beds expressed similar interest. Five hospitals with less than 100 beds indicated they might at some time be interested and one hospital with more than 100 beds.

Dr. Benoit stated further statistics, indicating that it is of considerable concern that the HCF has reviewed only 229 cases.

The law suit, as it relates to the Health Care Foundation, is at the moment awaiting a date for trial. Motions as filed by the HCF and MSMA were denied.

Dr. Benoit indicated that the HCF is still struggling with the Internal Review Department trying to have its categorization changed to a more favorable one.

He indicated that their Board is concerned about the manner in which panel review members and the members of the Central Coordinating Committee are to be selected. The HCF Bylaws Committee is charged with coming up with revised bylaws which will spell out how these members are to be selected. Dr. Benoit requested MSMA input into this effort. He stated that, originally, the M.D. panel review committee members were selected by the Councilor in their own district suggesting names, and Board members have been selected by the administrative members. Dr. Benoit indicated that this too has been challenged. He said that he felt there was some merit in the objections that the participating members really have no voice in the voting of the organizational structure as it currently exists. Dr. Benoit indicated that he feels the State Association should suggest the mechanism whereby such committee members, etc. are duly elected and/or appointed. He said that there should be some elections held at the end of this year. He said he would welcome any pertinent thoughts that the Council might have as to how to change the bylaws to make the voting more democratic. He stated that at the inception of the Health Care Foundation, many appointments were made and he felt that to continue this approach would be unwise.

Dr. Cope indicated that he felt three members of the Council should be selected to see what they could suggest and report in December.

After brief discussion, a motion was made and seconded that an advisory group from MSMA be appointed to assist the Bylaws Committee of the Health Care Foundation to suggest a new set of Bylaws that will make more democratic the election of panel review members and Central Coordinating Committee of the HCF and that the expenses of this advisory group be met by MSMA. Motion carried with one dissenting vote.

The question was raised regarding input from the Missouri Association of Osteopathic Physicians and Surgeons. Dr. Benoit stated that they are happy with the way selections are made now.

Dr. Benoit indicated that the financial needs for the continuing operations of the HCF are paramount at the present time. We are courting complete disenchantment with lack of staff and little financial help. Dr. Benoit stated that this summarized his report.

Dr. Hetlage questioned Dr. Benoit about what type of control the federal government might have if a grant were received. Dr. Benoit stated that, basically, all federal programs are the same. The only strings attached are that you have to demonstrate that the program is worthwhile and that you provide summary reports and evaluations at certain specified intervals. He stated that they may insist on consumer input. It was indicated that possibly the Foundation might lose a good percentage of its members if a federal grant were received.

Dr. Hansbrough asked whether all specialty groups had sent in guidelines for their specialties. It was stated that all had done so with the exception of family practice and urology.

Dr. Bradshaw asked if there were any other avenues of funding available. Dr. Miller said that they have explored every conceivable avenue of fiscal support. Basically, we felt that this Foundation, and this was supported by the existing Board, should be the responsibility of medicine. However, we felt it unwise to ask for an assessment to finance the Foundation. Although originally it was felt that physicians participating should possibly be paid for their time, we found rather hastily that this was not fiscally sound.

Dr. Miller went on to indicate that he felt there are only two alternatives—either go to the constituents and say we need more of your time and money or go to the federal government. He stated that all present give many dollars to the federal government each year and asked if they want any money back for something worthwhile. Everyone has said, "Yes. This is worthwhile. It needs to be done." If medicine doesn't do it, it isn't going to be done right. Let's don't walk away from this meeting today bankrupting this effort.

Dr. Benoit stated that he felt any attempt to get physician dollars into this is virtually impossible. He said that he does not feel that you can get physicians of MSMA to support this with an assessment. If we are successful through RMP, we are still 12 months away from getting any money. Dr. Benoit reported that he would like to have seen them operate under private funds. However, this did not pan out.

Dr. Bradshaw asked if the large Foundations had been approached for funds for the HCF. Dr. Benoit stated that under the present IRS classification of the HCF, these foundations would have to account for any funds they might give us. They do not want any part of that accountability. As indicated earlier, we are trying to have this rating changed.

Dr. Hetlage indicated that he felt the Council should take a vote on the HCF situation and made the following motion: "Move that we, as a Council, approve of the Health Care Foundation's efforts to seek additional financial help through government support." Motion was seconded. More discussion followed regarding the possibility of the Health Care Foundation seeking federal funds.

Dr. Franklin indicated that at the last meeting of the Council of the St. Louis Medical Society, it again was voted not to approve federal grants for the HCF. This was in accordance with the vote which had been taken a year or so ago and they still feel the same way.

Dr. Martin stated that it is his tax money that is up in Washington and he would like to get some of it back. He indicated that he felt that he would have to discuss this situation again with his constituents to find out where they stood.

Dr. McAlhany said that he felt his district would not buy seeking federal funds and moved that the matter of federal funds for the HCF be tabled until the December meeting to give the Councilors a chance to take it back to their membership. Motion was seconded and failed by a vote of five in favor of tabling and six against.

Dr. Bradshaw indicated that he also felt that the Councilors must make every effort to go back home and sell this.

Dr. Matthews stated that he felt it was not a matter of whether or not we are going to have federal funds, but whether it will be now or later. The important thing is, should we approve this now?

Dr. Mayer said that he has had a lot of experience dealing with the federal government and stated that the federal government does set down certain rules by which you are to abide if you get certain federal funds. If you feel you can abide by these rules, you accept the money. If you cannot go along with what they want, you don't accept the money.

Dr. Miller suggested that, possibly, the Council could approve federal funding of the HCF, providing that the premise of that funding be submitted to the Council for review. Dr. Benoit indicated that they are perfectly willing to report back to the Council, but it should become apparent that they cannot turn back to the two-parent organizations for everything.

Discussion ceased on the HCF and Chairman Cope called for the question on the motion on the floor: "Move that we, as a Council, approve of the Health Care Foundation's efforts to seek additional financial help through government support." Motion was seconded and carried by a vote of nine to three.

Dr. Bradshaw moved that the Health Care Foundation continues to seek other means of support as well. Motion was seconded and carried.

Dr. Benoit stated that he would like to make two other, unrelated comments. He stated that the *Jackson County Medical Society Bulletin* reprinted verbatim the presentation Dr. Howard gave at the AMA House, "What Is the AMA Doing?" He indicated that he felt this was one of the best things he had read and hoped that the Editorial Board of the MSMA Journal would be willing to print it in Missouri Medicine.

Dr. Benoit referred to the resolution introduced in the last MSMA House regarding Council Chairmanship. This resolution indicates that a change be made so that the Chairman of the Council could represent the entire state membership rather than his district and have another councilor from his district. He also indicated that according to the Planning Committee's report, the Immediate Past-President would be eliminated from the Council. Dr. Benoit stated that he felt that even though the Chairman of the Council would serve as a ranking officer of the Association, his main interest would still be with his own district. He said he felt a big mistake would be made if this was passed.

DIRECTOR OF THE DIVISION OF HEALTH

Dr. Domke indicated that the MSMA Council has addressed itself to the problem of an effective program for the control of Venereal Disease. The State PTA, Department of Education, Division of Health, MAOPS and the MSMA are cooperating to come up with an effective educational program. Workshops are being planned for lead-

(Continued on page 956)

WASHINGTON

Only a handful of some 2,600 health related bills introduced into the 92nd Congress have become public law. The most talked about pieces of health legislation over the past two years . . . national health insurance and health maintenance organizations . . . have been set aside for deliberation by next year's 93rd Congress.

After long years of debate by two sessions of the Congress, the Social Security catch-all legislation (H.R. 1) with its significant amendments to Medicare and Medicaid gained passage and has been signed into law by the President. Three of its measures are of major importance to physicians.

First is the Professional Standards Review Organization (PSRO) proposal of Utah's Senator Wallace Bennett which is designed to improve quality and utilization review of health care on a national basis. This provision of the law stresses that over the next two years, peer review will be concentrated in institutional settings rather than in physicians' offices, such review to be undertaken by physician organizations only.

Second, the new law stipulates that Medicare and Medicaid patients may receive care from health maintenance organizations (HMO's) but that federal reimbursement for such care will be no greater than for similar services rendered by non-HMO providers.

Third, the new law grants certain chiropractic benefits to Medicare and Medicaid patients. As passed by the Senate, chiropractic benefits were limited only to manipulation of the spine. In joint conference, House members further modified the Senate provision to require that chiropractic benefits be covered only after an x-ray revealed subluxation. The language of the law is not specific, but apparently the x-ray cost will not be paid for by Medicare nor may the x-ray be interpreted by a chiropractor. However, this point will not be clarified until the regulations are written. The provision also requires that chiropractors, in order to be reimbursed, must meet minimum standards established by the Secretary, Department of Health, Education and Welfare.

HMO Option

The legislation contains the Administration's request for allowing Medicare-Medicaid beneficiaries to enroll in HMO's, but limits the choice to existing prepaid group practicing plans by providing that incentive reimbursement would be available only to HMO's with a minimum membership of 25,000 and which have been in operation for at least two years. Instead of the Administration's plan for paying such HMO's 95% of the combined part A and part B costs of Medicare patients in an area, the bill sets out a formula under which HMO's would receive one half of the savings if care has been rendered for less than the Medicare average in an area (the so-called incentive reimbursement), but would have to absorb the entire loss if HMO treatment for Medicare beneficiariets runs higher than regular Medicare costs in the area.

The Joint Conference rejected a provision that would have made the federal government share in the losses of HMO care to Medicare patients, as well as a provision that would have established a bonus arrangement for states providing HMO care for Medicaid beneficiaries.

Chiropractic

Inclusion of chiropractic benefits for the first time in a federal program was a set back to the medical profession, the Administration and numerous other anti-chiropractic forces. However, the modification of the chiropractic benefit language in conference may make it practically unworkable. As passed by the Senate, chiropractic benefits were limited to manual manipulation of the spine. In conference, this was modified to require that benefits would be covered only after an x-ray revealed subluxation. Apparently the x-ray cost will not be covered nor can it be interpreted by a chiropractor, but these points will not be clarified until regulations are written.

Senator Edward Kennedy attempted by an amendment from the floor to strike the chiropractic provision, but it was soundly defeated by a vote of 66 to 6. Subsequently, the Massachusetts senator admonished the AMA for not supporting his amendment.

However laudable his effort, Senator Kennedy —an experienced parliamentarian—should have recognized that his attempt to strike the chiropractic provision had no chance of success. His amendment to H.R. 1 was unprinted, he introduced it from the Senate floor and he proceeded without the cooperation of the bill's floor manager. That his approach was ill-advised from the standpoint of effective parliamentary procedure is evidenced by the amendment's lopsided defeat.

Prior to the introduction of his amendment, the Senator's staff was counseled by anti-chiropractic forces—including the AMA—that he did not have the votes. Further, it was pointed out that an overwhelming defeat of his amendment by a recorded vote would seriously hamper the Senate conferees in their efforts to bargain with members of the House in joint conference.

On several occasions in the past, the Senate Finance Committee has added a similar chiropractic provision to a pending measure. But in each of these cases the Senate conferees later agreed to its deletion in joint conference with the House. In large part, this was made possible because the chiropractic issue had not been singled out for separate vote on the Senate floor and, thus, did not specifically pin down the Senate conferees.

In the latest instance, Senator Kennedy raised the issue singly and separately. Predictably, his amendment was roundly defeated.

Unfortunately, the effect of this was to impress the Senate conferees with the recorded wishes of the vast majority of their colleagues when they sat in joint conference with the representatives of the House. In conference, however, Rep. Wilbur Mills was able to modify the Senate language so as to require an x-ray determination of subluxation.

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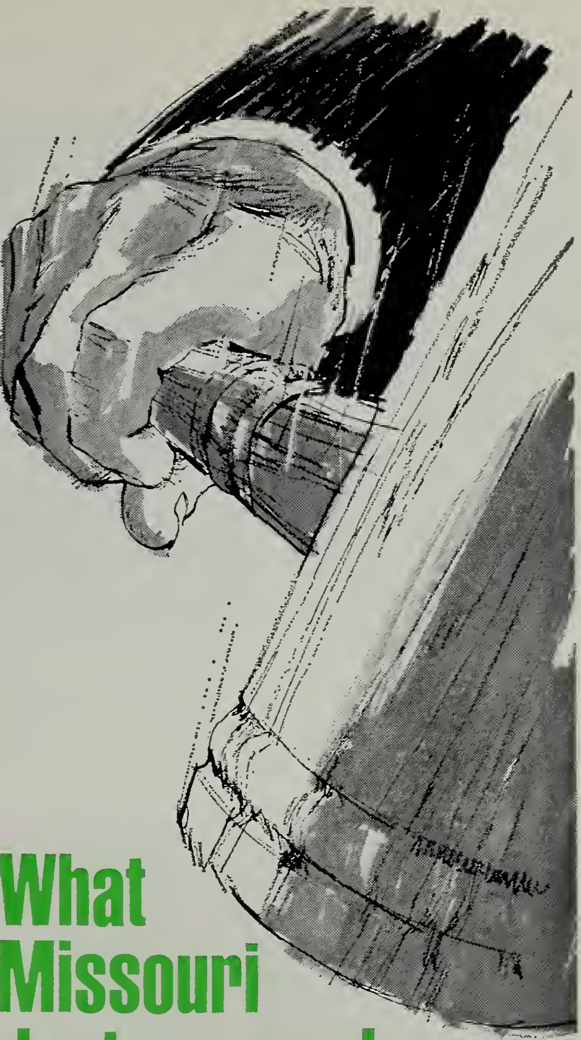

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MSMA Fifth District, Woman's Auxiliary Hold Legislation-Health Education Meeting

Christopher (Kit) Bond, Republican candidate for governor, spoke to Conference guests Tuesday afternoon.

Edward L. Dowd, Democratic candidate for governor, also appeared on the legislative program Tuesday.

Among the notables at the head table at the Conference luncheon on October 25 were *(left to right)* William D. Bradshaw, M.D., Clinton, MSMA Sixth District Councilor; Mrs. Charles R. Willman, St. Joseph, President-Elect of the MSMA Woman's Auxiliary; Richardson K. Noback, M.D., Dean of the University of Missouri-Kansas City School of Medicine; and Mrs. Linus Hewit, Tampa, Fla., Program Chairman, National Health Education, Woman's Auxiliary to the AMA.

(Left to right) Sen. William J. Cason, Clinton, was a guest at the Auxiliary Conference. He is greeted by Mrs. Keith D. Jones, Warrensburg, President of the MSMA Woman's Auxiliary, and Royal O. Cooper, Jefferson City, MSMA Assistant Executive Secretary.

"You have observed more talent in two days than I see in a year!"

This was a point emphasized by Dr. William D. Bradshaw, MSMA Sixth District Councilor, in his summary of the joint meeting of the MSMA Fifth Councilor District and the Woman's Auxiliary State Fall Conference at Ramada Inn in Columbia on October 24-25.

"Legislation, Education and Community Action for Health" was the theme of the Auxiliary Conference which presented leading health educators, legislators and political candidates as speakers and in panel discussions. It was the first conference of its kind to be held in Missouri.

Mrs. Keith D. Jones, President of the Woman's Auxiliary to the Missouri State Medical Association, presided. She said that between 150 and 200 members and guests registered for the event. Representatives of approximately 70 other statewide organizations had been invited to share the conference.

Mrs. Lynn D. Mitchell and Mrs. George P. Wilson of Columbia served as co-chairman for the meeting which was hosted by the Boone County Medical Auxiliary.

The Fifth Councilor District meeting on October 24 featured the first benefit banquet for the Missouri State Medical Foundation, when physicians and their wives from the 12-county Central Missouri area joined the Auxiliary members attending the conference.

Walter T. Gunn, M.D., St. Louis, President of the Missouri State Medical Association, addressed the banquet group. Guest speaker was Roy Pfauteh, president of Civic Service Incorporated, a campaign management/public research organization with offices in St. Louis and Washington, D. C. His subject was "Practical Politics."

In addition to other numerous national and international activities, Mr. Pfautch has served as campaign manager on both the congressional district and statewide bases and handled successful election bids for U. S. Senators Bob Dole and Glen Beall. He is a consultant to the AMA Political Action Committee and the Republican National Committee and is former chairman of the Subcommittee on Political Education of the U. S. Chamber of Commerce.

Mrs. Jones said that the attendance was the largest the MSMA Auxiliary has experienced at any of its conferences. She credited the subjects which were discussed and the outstanding speakers who participated.

Tuesday's banquet culminated a Legislative Day for the Auxiliary members. During the afternoon session, legislation and the AMPAC program were the subjects of a panel discussion moderated by Mrs. Gerald L. Miller, the State Auxiliary's Legislative Chairman, and Mrs. James A. Reid, Public Affairs and MMPAC Chairman. Panelists were Mrs. John M. Chenault, a Past-President of the Woman's Auxiliary to the AMA and a member of the AMPAC Board; Dr. John I. Matthews, MSMA Legislative Chairman; and Royal O. Cooper, MSMA Assistant Executive Secretary.

Highlights of the day included personal appearances by Missouri's two gubernatorial candidates, Democrat Edward L. Dowd and Republican Christopher (Kit) Bond. Missouri Legislators who attended the luncheon on Wednesday were Senators William J. Cason, Norman L. Merrell, Ike Skelton and A. Basey Vanlandingham and Representatives Charles H. Dickey, Jr., Bill J. Crigler and William Raisch.

Tuesday afternoon's program included Mini-Workshops for county auxiliary presidents and presidents-elect and for chairmen of committees on AMAERF, Health Manpower, Legislation and International and Community Health.

October 25 was Health Education Day. President Gunn greeted the Auxiliary members and Mrs. Raymond Hartwig, MSMA Auxiliary Chairman of Community Health Services, introduced Arthur Mallory, Ph.D., Missouri Commissioner of Education, who delivered a welcoming address.

The general program was moderated by Mrs. Linus Hewit, Program Chairman, National Health Education, Woman's Auxiliary to the AMA. Speakers were William Carlyon of Chicago, Assistant Director for Health Education to the AMA, and Robert Taylor, Ph.D., Director of Health, Physical Education and Safety, Missouri Department of Education. Mr. Carlyon delivered the keynote address.

A panel discussion presented the following speakers and their subjects: Grace McReynolds, Ph.D., Director, Curriculum Development, Missouri Department of Education, *Early Childhood Development;* Charles Fast, Ph.D., Professor of Health Education, Northeast Missouri State University in Kirksville, *Adolescent Through Adult;* Dwayne Crompton, M.S., Assistant Director, Kansas City Model Cities Day Care Corporation, *How Day Care Centers Assist in Health Education;* Basharat Jazbi, M.D., D.L.O., Denmark, Visiting Professor of Otorhinolaryngology, University of Missouri-Kansas City, *Otorhinolaryngology in Health Education;* and Warren Weinberg, M.D., Assistant Professor, Department of Pediatrics and Neurology, Washington University School of Medicine in St. Louis, *Total Aspect or Child (Medical).*

***(Left to right)* Mrs. James C. Cope, Columbia, poses in her "campaign hat" while Doctor Cope visits with Dr. G. Donald Shull, Jefferson City. Doctor Cope, who is Fifth District Councilor and Chairman of the MSMA Council, presided at the banquet. The hats, American flags and red-white-blue streamers were included in decorations for the Conference.**

The guest speaker at the Wednesday luncheon was Richardson K. Noback, M.D., Dean, University of Missouri-Kansas City School of Medicine. His subject was "The Medical School's Role in Helping Meet Health Care Needs."

The afternoon program featured another panel discussion by Lofton R. Hudson, Ph.D., Director, Midwest Christian Counseling Service in Kansas City, who discussed "Religion—Challenge for the Future," and George Reeves, St. Louis, President of the Missouri Senior Citizens Association, whose subject was "Health Education for the Older Adult."

The final event presented a youth panel from Hickman High School in Columbia.

Following their presentations, all panelists who appeared on the day's program invited and answered numerous questions from the audience.

Mrs. Jones announced that representatives of the following organizations attended the meeting:

Missouri State Teachers Association, Missouri Public Health Association, Missouri Health Careers, Missouri Home Economics Association, The Salvation Army (Kansas City), Governor's Committee for Children and Youth, Boy Scouts of America (North Central), American Cancer Society, Missouri Association for Education of Young Children, Missouri Association for Supervision and Curriculum Development, Church Women United in Missouri, Woman's Auxiliary to the Missouri Association of Osteopathic Physicians and Surgeons, Junior League of Kansas City, Woman's Auxiliary to the Missouri Veterinary Medicine Association, YMCA of Springfield, Jefferson City Diocese of the Catholic Church, Heart of America Tuberculosis and Respiratory Diseases Association, American Heart Association, Missouri Extension Homemakers Association.

medical melange

Notes of interest from Here . . . . and There

When **Dr. R. L. Ferguson** of Joplin appeared as principal speaker at a dinner at St. John's Medical Center on October 28, he also became the guest of honor and the recipient of a framed certificate of appreciation. The event marked the first reunion for all persons who have graduated from St. John's School of Medical Technology in its 21-year history. The certificate was signed by Sister Joan Martin, R.S.M., administrator of the medical center, and voiced appreciation for Doctor Ferguson's "time and effort" from the year he founded the educational facility in 1950 until 1972. **Dr. Victor M. Carnes** and **Dr. John R. Esther** are now co-directors of the school.

Dr. W. A. Fuson, Trenton, was honored at a Trenton Chamber of Commerce Hall of Fame banquet on October 19 at the First Christian Church in Trenton. Doctor Fuson is the fourth local resident to be included in the Chamber's Hall of Fame, which was instituted in 1970. Last year's recipient was **Dr. Oliver F. Duffy**, Trenton.

Dr. Wyeth Hamlin, Hannibal, is the newly-elected chairman of the Missouri Regional Medical Program (MoRMP) Regional Advisory Group. Doctor Hamlin has served on the Regional Advisory Group since July, 1970. He succeeds **Mr. Robert E. Frank**, director of Barnes Hospital in St. Louis.

Dr. William C. Banton II, who resigned as St. Louis Health Commissioner in July after moving into St. Louis County, has been appointed special consultant to the Commissioners of Health and Hospitals in St. Louis County, according to an announcement on October 21 by County Supervisor **Lawrence K. Roos.**

Dr. Charles W. Cooper, Jefferson City, has been elected president of the medical staff of Memorial Community Hospital in Jefferson City. Other elected officials are **Dr. James S. Gordon**, president-elect, and **Dr. Larry P. Courter**, secretary. **Dr. James E. Allan** and **Dr. Harold K. Kanagawa** were elected to serve on the executive committee of the medical staff.

Dr. Jerome H. Thies, Osceola, has been elected to a term on the Board of Governors of Community Counselling Consultants, the new mental health agency serving the Kaysinger Basin area.—**Dr. Gerard H. Berndsen** has been named president-elect of the medical staff of St. Joseph Hospital in Kirkwood. He succeeds **Dr. Gerald L. Behrens. Dr. Robert Bowles**, also of Kirkwood, was named to serve as secretary-treasurer in the recent election.

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JOHN D. HALVERSON, M.D., *and*
JOSE M. HORI-ROBAINA, M.D., *St. Louis and Columbia*

Cardiac Metastasis From a Cystosarcoma Phyllodes

Case Report

Cystosarcoma phyllodes is a rare breast tumor. Although it seldom metastasizes, it frequently recurs locally. The following case is reported because of the unusual clinical presentation and autopsy findings.

Case Report

A 66-year-old white woman was admitted to Ellis Fischel State Cancer Hospital-Cancer Research Center (EFSCH-CRC) in May, 1969 with an 18 cm x 10 cm hard mass in the upper outer quadrant of the right breast. The mass was adherent to the skin and to the underlying pectoralis muscle. Two previous attempts at excision had been unsuccessful, the first in 1967 (reported as a fibroadenoma) and the second in 1968, when it recurred in the surgical scar and was classified as a leiomyoma. The mass was finally identified as cystosarcoma phyllodes, and a right radical mastectomy was performed. The pectoralis muscle and 24 axillary lymph nodes contained no tumor. At that time, the chest x-ray was normal and the EKG showed only subendocardial ischemia. The patient did well postoperatively.

She was subsequently readmitted in May, 1971 with bloating, dyspnea, vomiting and hyponatremia. On physical examination, she was obese, lethargic and dyspneic with a blood pressure of 124/80 mm Hg. She had a cold, mottled skin and anasarca. Neck veins were not seen, and no local recurrence of tumor was noted. Breath sounds were decreased at the right lung base, and the liver was palpable 4 cm to 6 cm below the right costal margin. She was more dyspneic lying on her left side. Her central venous pressure (CVP) was 27 cm H_2O, and a chest x-ray showed a right pleural effusion with a probable right upper lobe metastasis. EKG showed right axis deviation with a right bundle branch block and evidence of an anterior infarction of undetermined age.

The patient was digitalized with poor results. At-

This is a case report of a cystosarcoma phyllodes of the breast in a 66-year-old woman who had a symptomatic cardiac metastasis. The primary tumor was excised locally twice before its malignant nature was recognized and radical mastectomy was performed. Two years later, she died with obstruction of venous return to the heart due to obliteration of the right ventricular cavity by metastasis. Doctor Halverson is Resident in Surgery at Washington University School of Medicine and Doctor Hori-Robaina is Associate Pathologist at Ellis Fischel State Cancer Hospital and Cancer Research Center and Assistant Professor of Pathology at the University of Missouri School of Medicine.

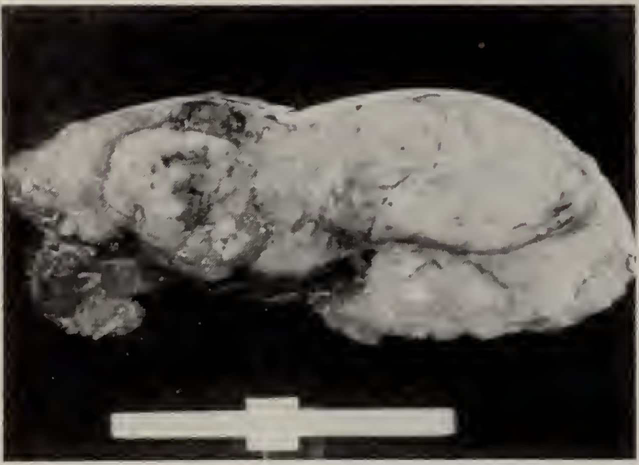

Fig. 1 Complete section of right breast. The tumor is sharply demarcated and separated from the skin by fat with areas of hemorrhage (biopsy).

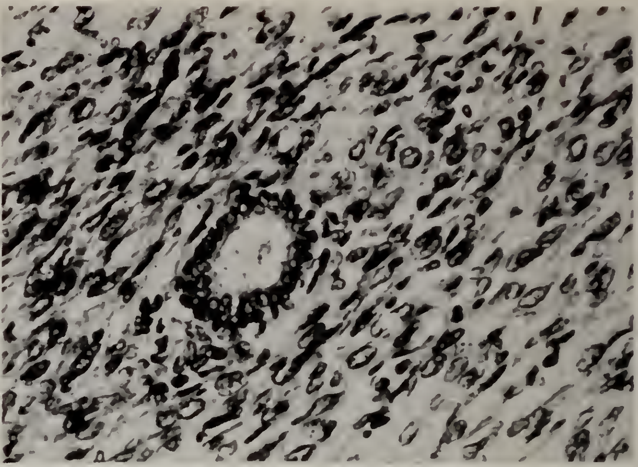

Fig. 2 Cystosarcoma phyllodes. Glandular component of the primary lesion accompanied by moderate pleomorphism of the surrounding stroma.

tempts to induce diuresis were unsuccessful. Her condition deteriorated as progressive abnormalities in liver and renal function tests appeared. Oliguria and hyperkalemia ensued, and the CVP remained elevated. The patient died on the fourth hospital day.

The main findings at autopsy were seen in the heart, which weighed 480 gm. A mass occupied most of the interventricular septum and bulged into the right ventricle blocking tricuspid valve inflow, reducing the ventricular capacity to 75% to 80% (Figs. 3 and 4). The valves were intact and apparently functional. The surface of the tumor within the ventricle was nodular with peripheral areas of infarction and superimposed thrombosis. The lungs contained several areas of red infarction of different ages, presumably the result of tumor embolization from the right ventricle. Two metastatic nodules

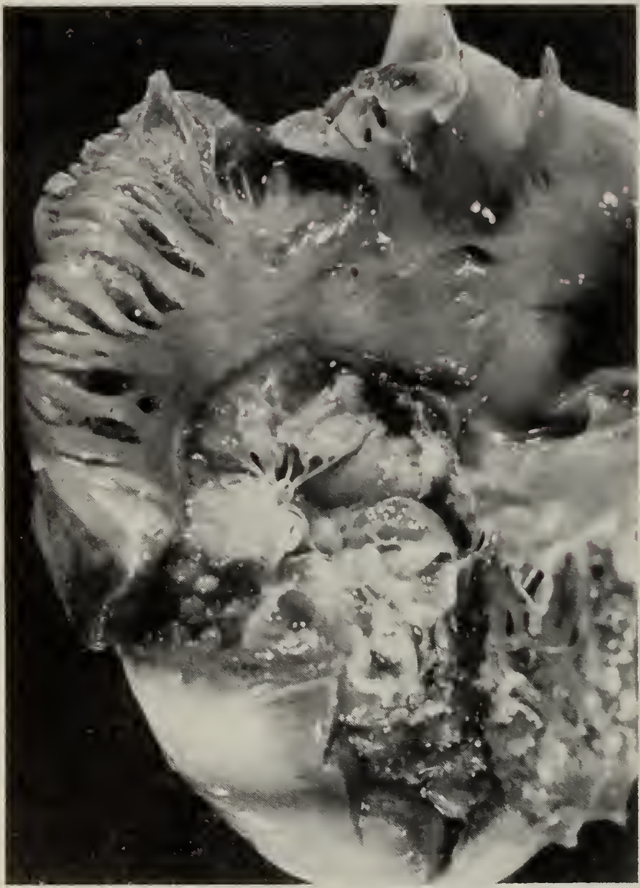

Fig. 3 Posterior view of the right ventricle with a multinodular, intracavitary metastasis. The tricuspid valve and atrium are free of tumor.

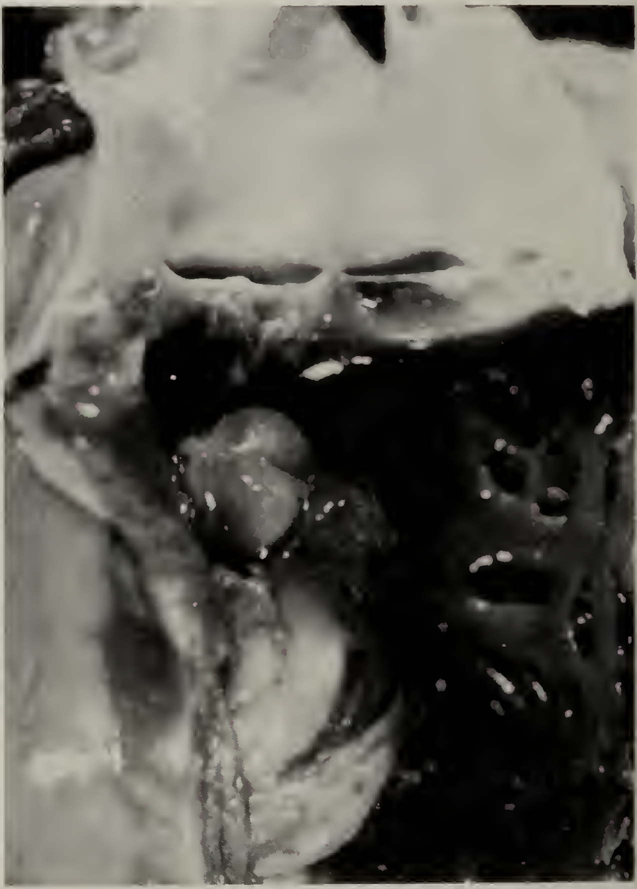

Fig. 4 The intracavitary growth bulging near the pulmonary valve.

were present; the largest (2.5 cm) was in the base of the right upper lobe and the other (1.8 cm) was near the diaphragmatic surface of the right lower lobe. The liver and spleen showed changes of chronic passive congestion.

The microscopic appearance of the cardiac mass was similar to the tumor excised from the breast, which consisted of spindle and ovoid cells, loosely arranged and forming irregular nodules (Fig. 5). In some areas, the classical leaf-like pattern occurred. No epithelial component was seen. There was an increased number of pleomorphic giant cells near the epicardium. Many zones of edema and necrosis also were identified.

COMMENT

This case is unique because the patient's deterioration was the result of a large cardiac metastasis. Obstruction of the venous return to the right ventricle produced digitalis-resistant congestive heart failure resulting in anasarca, elevated CVP, oliguria and hepatic congestion. The right bundle branch block shown on her EKG may have been related to metastatic involvement of the interventricular septum.

We have reviewed 16 cases of cystosarcoma phyllodes among 3,182 cases of breast cancer (0.5%) seen at EFSCH-CRC during the last 30 years. Of the 16 cases, four developed distant metastases and two out of five patients undergoing radical mastectomy had tumor in the axillary lymph nodes. Of 15 cases treated by surgical removal, local recurrences were noted in seven cases.

Metastases to the heart in autopsied cancer patients are uncommon, occurring in 2% to 12%[1-3] of the cases. Malaret reported occurrence as high as 22%.[4] At EFSCH-CRC, there were no breast cancer cases with known cardiac metastases that did not also have generalized metastases. The most common tumors resulting in cardiac metastases are the lymphoma-leukemia group, followed by carcinoma of the breast, malignant melanoma and carcinoma of the lung. Cardiac metastases most frequently occur within the myocardium, presumably due to hematogenous spread.[5] Although the left ventricle is the most frequently involved chamber, the right ventricle is involved[1-5] in 30% to 50% of hearts with metastases. In the most recent literature, we have found four autopsy-proven cases of cystosarcoma phyllodes with metastases to the heart.[6-8] In all of them, this was part of widely disseminated disease.

In general, cardiac metastases producing clinically recognizable signs and symptoms are unusual.[1, 2] Antemortem signs may include tachycardia, arrhythmia, pericarditis, congestive failure or infarction-like changes in a previously normal heart. A superior or inferior vena cava syndrome also may be seen.[5] The clinical approach in such patients will require the use of selective angiocardiography as advocated by Hallerman *et al.*[3]

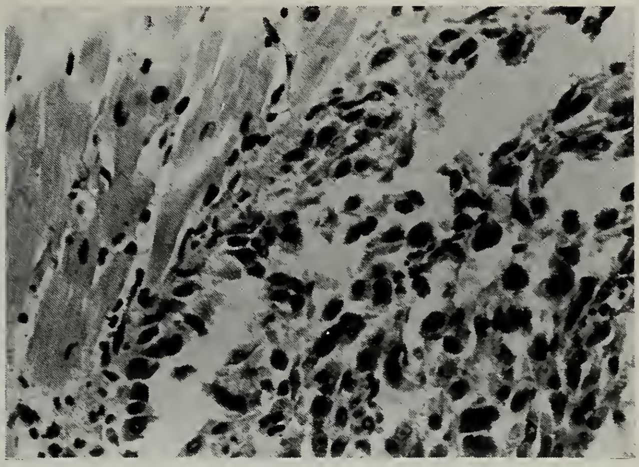

Fig. 5 Section of the right ventricular wall and metastatic cystosarcoma phyllodes. Moderate pleomorphism and mitosis of the tumor cells.

The importance of the present case is its contribution to the knowledge of the physiopathology of intracardiac obstruction due to metastases. Because of the scarcity of reported cases, this is seldom considered in the differential diagnosis of cardiac failure in a previously known cancer patient. We do not advocate the use of extensive, specialized techniques in order to prove this possibility in every patient with cancer. However, consideration should be given when unexpected cardiac complications appear in the follow up of such a patient.

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Cancer—Assuming a Disunity

DESPITE THE IMPROVEMENT in cure rate and an increase in skills which serve to ameliorate day-to-day clinical problems, few in experimental oncology would feel that reasonable success has been achieved. The broad search for the basis of a unitary concept in cancer has, to this date, failed. This recognition leads us to a trichotomy: (1) continue to seek that elusive basic and generalized difference between cancer and normal upon which a specific chemical therapy or preventive can be based, (2) accept the search as fruitless (and, perhaps, concentrate on refinement of clinical technology) or (3) entertain the one encompassing alternative—that cancer is a distinct entity each time it arises. It is exploration of this last alternative that we propose here, although we do not imply that work based upon the first or even the second alternative is less useful.

It certainly is stating the "worst case" to suggest that each cancer is distinct from all others. However, examination of this most extreme possibility and the design of a response to it, if successful, will make it easy to modify our methods if natural disease categories exist. Hence, it is *a priori* useful to consider each cancer to be a new and independent entity. The medical response would similarly be based upon the characteristics of that particular cancer and that particular host and would make requisite a unique procedure for each patient and for each cancer.

The search for a broadly applicable therapeutic approach based upon a unifying characteristic of all cancer has not been successful as yet. Basing their suggestion primarily upon review of the literature of animal cancer models, the authors convey a concept that rational alternative to a universal therapeutic instrument can be conceived. Doctor Brown is Chairman of the Biochemistry Section and Mr. Chattopadhyay is a Scientist at the Cancer Research Center. This work was supported by U. S. Public Health Service Grant # CA-08023.

Oncologists, of course, have looked away from this alternative, presumably because they see it to mean either complete inability to deal with the disease or an inordinate, perhaps insurmountable, expense in human labor to devise for each occurrence an effective therapeutic mode. There is no doubt that expense is implied. Nonetheless, we accomplish in this technological society relatively complex tasks with bearable outlays of value. Construction of an automobile requires many thousands of individual operations and a major production facility, but a usable vehicle reaches the public for about one fourth of an average annual wage. The recognition, technique development and treatment (therapy resulting in cure) of a cancer would probably not involve a greater number of operations. Assuming (1) that these operations can be as efficiently systematized as those involved in automobile manufacture and (2) that the individual labor elements can be reduced (by simplification) to an equivalent cost, then an equivalent dollar outlay for an effective cancer therapy can be achieved. The cost can be justified in the economic terms of direct benefit to the society by reclaiming the individual's (patient's) labor during the years after recovery.

As a practical matter, this individual approach to the cancer patient requires a therapeutic modality based upon a chemical and physical profile of the tumor and of the patient himself. We know from work with experimental animals, e.g., the extensive animal hepatoma literature, that each tumor has elements of biochemical uniqueness. Hence, a profile of an individual tumor with emphasis on those points of intermediary metabolic control (where we think the differences between tumors and normal tissues are most likely to exist) would serve as the basis for a design of therapy. Let us suppose we find that the tumor has two, three or more biochemical sites at which the pathway is either markedly altered or the level is different from that existing in the normal cell. Then, we could specify inhibitory substances which would focus upon those particular sites of abnormality. Our arsenal of "drugs" may be specific materials (example: antagonists of amino acids essential to the tumor but not to the body cells) or those which might be useful by virtue of a response differential (greater effect on the tumor cells, lesser effect upon other body cells, e.g., a specific inhibitor of an enzyme which is more active in the tumor than in other body cells). This latter approach is merely optimization of the present usage of differentially toxic compounds (Table 1).

TABLE 1

SELECTIVE LIST OF ANTITUMOR AGENTS WHICH FUNCTION BY DIFFERENTIAL TOXICITY

Agent	*Subcellular Actions*	*Principal Side Effects Resulting From Toxicity to Non-Target Tissue*
I. *Antimetabolites*		
A. *Folic acid antagonists*		
4-Aminopteroylglutamic acid 4-Amino-N^{10}-methylpteroylglutamic acid	Folic acid antagonists inhibit the conversion of folic acid to folinic acid by reacting with folic reductase.	Stomatitis, ulcers in oral cavity and intestine, depression of bone marrow function, liver damage.
B. *Purine derivatives*		
6-Mercaptopurine	Prevent transformation of inosinic acid to adenylic acid and purine derivative conversion of phosphoribosyl-pyrophosphate to phosphoribosylamine. Inhibits DNA synthesis.	Lesions of oral mucosa and the entire gastrointestinal tract, depression of hemopoiesis, leukopenia, thrombocytopenia, anemia, nausea, anorexia.
Thioguanine, Thioguanosine, 6-Chloropurine	Possibly same as 6-mercaptorpurine.	Less marked side effect on liver and gastrointestinal tract than 6-mercaptopurine.
C. *Pyrimidine derivatives*		
6-Azauracil Diamino-dichloro phenylpyrimidines	Primidine derivatives, like purine derivatives, inhibit DNA synthesis.	Pyrimidines are toxic to central nervous system. They cause vomiting, nausea, stomatitis, diarrhea, skin rash, loss of hair, depression of hemopoiesis.
D. *Fluoro derivatives of pyrimidines*		
5-Fluorouracil (FU) 5-Fluorouridine (FUR) 5-Fluorodeoxyuridine (FUDR)	Pyrimidine derivatives, like purine derivatives, inhibit DNA synthesis.	Diarrhea and progressive weight loss, hemorrhage, depression of hemopoiesis, dystrophic changes in the intestinal epithelium.
II. *Amino Acid Hydrolyzing Enzymes*		
A. Glutaminase	Hydrolysis of glutamine.	Neural toxicity resulting from glutamine deprivation.
III. *Antibiotics*		
A. Azaserine	Possibly inhibits the synthesis of the purine ribotides.	Disturbances in the gastrointestinal tract, depression in bone marrow function, liver, pancreas and kidney damage.
B. DON (6-diazo-5-oxo-L-norleucine)	Possibly same as azaserine.	Hemorrhagic enteritis, loss in body weight and death, vomiting, diarrhea and ulceration of mucosa.
IV. *Alkaloids*		
Colchicine Colchamine Podophyllin Vinblastine	These alkaloids are able to arrest mitosis in the metaphase as a result of damage to the spindle. Higher concentrations of the alkaloids may produce change in the chromosomes.	Depression of hemopoiesis, diarrhea, polyneuritis, loss of body weight, leukopenia and anemia, fall in the number of neutrophils, necrobiotic and atrophic processes in the bone marrow and lymphoid organs, degenerative change in the intestinal epithelium and disturbed spermatogenesis.

The availability of an extensive profile would allow us not only to choose an appropriate "drug" (or combination of appropriate drugs) but to influence the disease course through nutritional balance, immunologic enhancement and so forth.

The Model and Its Basis in Experimental Data

The thesis upon which our pragmatic model is based is as follows: an individual cancer is metabolically or immunologically different in one or more characteristics (in quantity, if not in kind) from all other tissues of the body of that tumor's host. Thus, the therapeutic agent (chemical) or generalized therapeutic approach, e.g., nutritional, appropriate to that particular tumor even if completely successful may lack relevance to all other cases.

For instance, in the period since the 1930s, Otto Warburg's thesis that cancer is a metabolic abnormality in which the glycolytic pathway reactions replace or greatly surplant the normal contribution of aerobic carbohydrate metabolism has been experimentally tested. These studies have resulted in a literature illustrating that given tumors, e.g., those in animal hepatomas (Table 2), although different from each other nonetheless regularly show severe and disparate abnormalities in their metabolism. The immunologic literature is far less complete, but one assumes that a similar picture will evolve.

In the same way that the hepatoma series illustrates variation from the norm for liver in glycolysis (Table 2), there is gross variation in

TABLE 2

METABOLIC DEFECTS CHARACTERISTIC TO PARTICULAR RAT HEPATOMAS BUT VARYING GREATLY IN DEGREE WHEN GENERALIZED TO ALL TYPES IN THIS EXPERIMENTAL TUMOR SERIES

Enzymic Activity	*Characteristics*
Glucose-6-phosphatase, fructose 1, 6-diphosphatase phosphoenol pyruvate carboxykinase, pyruvate carboxylase, glucokinase, fructokinase	Enzymic activity low in those tumors exhibiting rapid growth.
Hexokinase, phosphofructokinase, pyruvate kinase, glucose-6-phosphate dehydrogenase	Enzymic activity high in those tumors exhibiting rapid growth.
Phosphoglucomutase	Activity lower than normal in most hepatomas but higher in 7787 tumor, a slow growing hepatoma. Same as normal in slow growing 7793 and 7800 hepatomas.
Aldolase	Enzymic activity has no correlation with the growth rate of hepatomas. Almost normal value in one slow growing (7793) hepatoma and lower than normal in another (7316A). Similarly, normal activity in some fast growing hepatomas (Novikoff) and lower than normal in another (DMAB-induced).
Lactate dehydrogenase	Activity has no correlation with the growth rate. Remarkably low in slow growing hepatomas with the exception of 7793 where activity is close to normal. Again 3924A, a fast growing hepatoma has higher activity than normal. Another fast growing hepatoma, DMAB-induced, has remarkably lower activity than normal.
Phosphoglycerate kinase	Enzymic activity has no correlation with the growth rate. Higher than normal in slow growing (7787) hepatoma and lower than normal in another (7316A). Similarly higher in fast growing hepatomas (3683, Novikoff) and lower in DMAB-induced hepatoma.
Glycerophosphate dehydrogenase	Enzymic activity has no correlation with the growth rate of tumors. Higher than normal activity in slow growing hepatomas (7787, 7800). Lower than normal activity in some slow growing hepatomas (5123D, 5123C).

ability to synthesize "nonessential" amino acid (Table 3), lipid metabolism (e.g., L-glycerophosphate dehydrogenase), amino acid catabolism (most amino acid dehydrogenases), protein synthesis, hormonal control and so forth. Thus, in animal tumor models, any given tumor exhibits one or many gross abnormalities, albeit, one cannot assume that same abnormality will exist in any other tumor type. (The hepatoma series are transplanted lines. Hence, each is actually a single clone carried from animal generation to generation. We assume here that each individual human tumor represents the initiation of such a clone.)

STEPS IN THE SYSTEMATIC RESPONSE TO EACH CANCER AS AN INDIVIDUAL OCCURRENCE

The operational steps necessary to deal with cancer as an independent case for each occurrence are given in Fig. 1, using biochemical "abnormalities" as the basis. The approach is biochemical, in part because the authors are biochemists, but more rationally because the most extensive body of knowledge by which the matter can be approached is in the literature of this discipline. Certainly, the presumption that immunological, nutritional or other bases might serve as well is reasonable.

In our scheme, once the patient's illness has been diagnosed as "a cancer," he would enter the flow leading to treatment, cure or maintenance. The first series of operations represents patient and tumor evaluation. The tumor must be recognized, biopsied and described as completely as possible using the sum of technology available to us. In addition, the patient himself must be characterized so that his own abnormalities (biochemical, drug responses, immunologic or nutritional peculiarities) if any, are clearly manifest—whether or not they represent a function of the cancer. This metabolic profile then may be the subject of analysis. In the bare form, what is implied here is that the tumor profile be examined for characteristics which depart from the known pathways of body tissues. Useful variations will conceivably appear in carbohydrate, lipid or protein metabolism, and both anabolic and catabolic systems may be involved. We presume from present experience that the most frequent and most extreme deviations from normality in chemical transformations will occur at those reactions which represent control sites in intermediary metabolism. Hence, in constructing a profile and in order to obtain the greatest possible economy, we should look at such points first in choosing criteria for inclusion in our profile.

TABLE 3

TUMORS WHICH REQUIRE "NONESSENTIAL" AMINO ACIDS

Nonessential Amino Acid	*Tumor Type*
Asparagine	Mouse leukemia L5178Y in culture; Walker carcinosarcoma 256 *in vitro;* spontaneous anaplastic lymphosarcoma; Novikoff hepatoma; mouse leukemia; 6C3HED lymphosarcoma.
Glutamine	Walker carcinosarcoma 256 *in vitro;* acute myelocytic leukemia; 6C3HED lymphosarcoma, Ehrlich ascites carcinoma in mice.
Serine	Chronic granulocytic leukemia; Novikoff hepatoma *in vitro.*
Arginine	Novikoff hepatoma; mouse lymphoblastoma L-5178Y.
Cysteine Histidine Tyrosine	Acute lymphocytic leukemia; acute myclocytic leukemia; human leukemia (JIII) Walker carcinosarcoma 256.

Parameters to be listed preliminarily can be derived from the literature of experimental tumors. These serve as a rational starting point in dealing with the human. Our thesis does not predict which of the characteristics might be deviant in any individual cancer; it predicts only that some abnormalities will exist and that the highest probability would be at those sites involved in the control of the intermediary metabolism (by feedback inhibition, derepression or other mechanism).

As a way to develop our discussion, an experimental tumor, Novikoff hepatoma, can serve as an illustration. We can react to its characteristics as we might to an equivalent situation in a human cancer. In this tumor clone, a number of activities are markedly different from those of normal tissue cells of the host (Table 4). These "defects" in sum give to the cancer a character quite different from that of any normal tissue, even though few deviant parameters are different in kind. It is apparent that a number of activities are quantitatively and severely depressed and that the tumor differs in kind from the tissues of the host as follows: (1) being unable to synthesize asparagine, arginine and serine and (2) in the absence of ornithine transcarbamylase and histidase activities, etc.

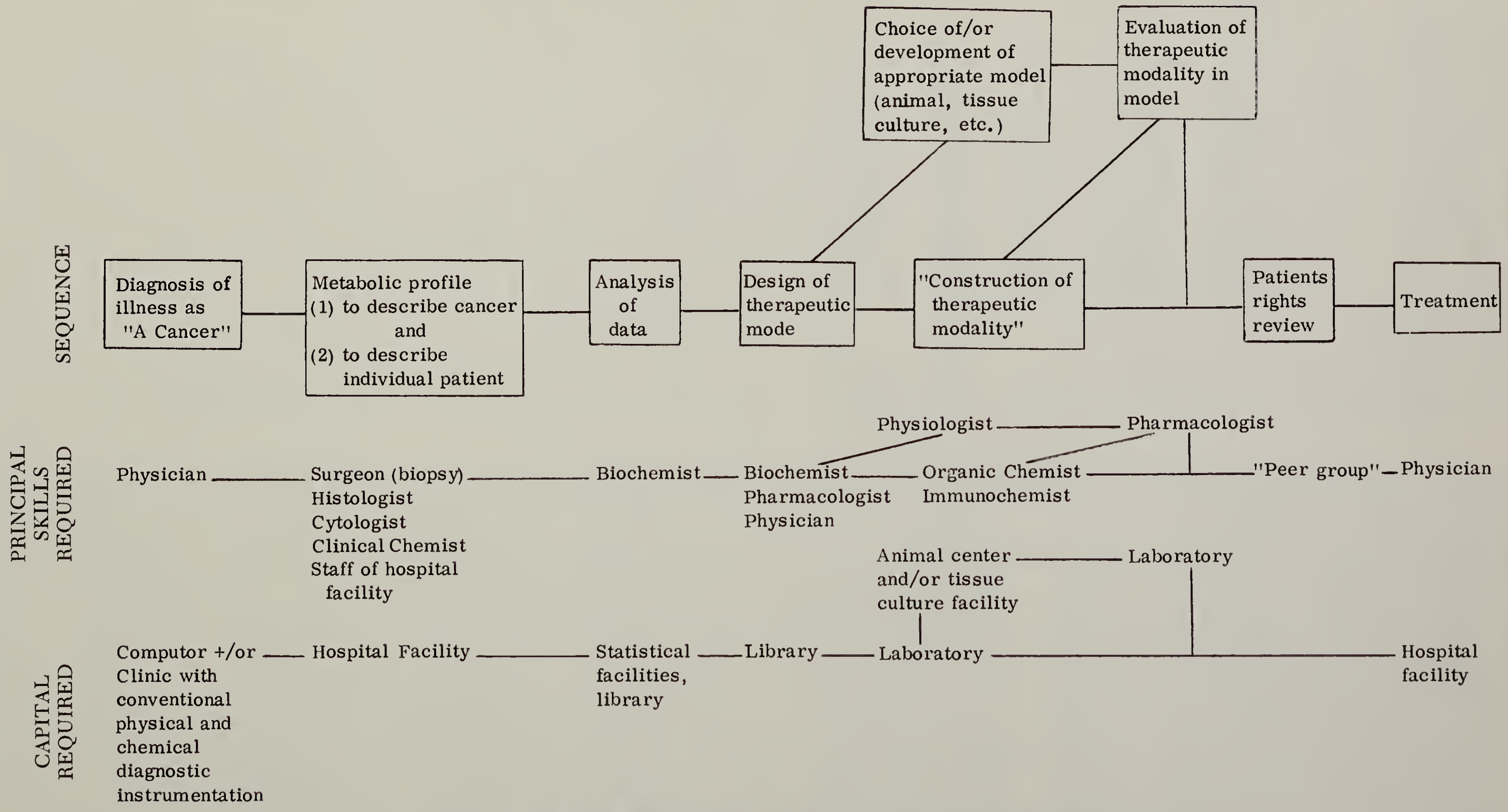
SEQUENCE
Diagnosis of illness as "A Cancer"
Metabolic profile (1) to describe cancer and (2) to describe individual patient
Analysis of data
Design of therapeutic mode
Choice of/or development of appropriate model (animal, tissue culture, etc.)
Evaluation of therapeutic modality in model
"Construction of therapeutic modality"
Patients rights review
Treatment
PRINCIPAL SKILLS REQUIRED
Physician
Surgeon (biopsy) Histologist Cytologist Clinical Chemist Staff of hospital facility
Biochemist
Biochemist Pharmacologist Physician
Physiologist
Pharmacologist
Organic Chemist Immunochemist
"Peer group"
Physician
CAPITAL REQUIRED
Computor +/or Clinic with conventional physical and chemical diagnostic instrumentation
Hospital Facility
Statistical facilities, library
Library
Animal center and/or tissue culture facility
Laboratory
Laboratory
Hospital facility

Fig. 1 Operational steps in dealing with cancer as an independent case for each individual occurrence. The scheme is based upon a model using the biochemical (metabolic) "abnormality" of the tumor; one could as well find other bases, e.g., immunochemical phenomena.

TABLE 4

NOVIKOFF HEPATOMA—BIOCHEMICAL DEFECTS

Enzyme	*Activity in Tumor*	*Activity in Normal Liver*
I. *Glycolytic Enzymes System*[1]		
A. Glucose-6-phosphatase	No demonstrable activity	7.1
B. Fructose-1, 6-diphosphatase	No demonstrable activity	5.6
II. *Electron Transport Enzyme System*[2]		
A. NAD-Cytochrome c Reductase		
1. Mitochondria	92.2	278.3
2. Microsomes	41.4	208.5
B. NADP-Cytochrome c Reductase		
1. Mitochondria	Negligible	16.4
2. Microsomes	Negligible	21.7
C. Transhydrogenase		
1. Mitochondria	0.3	35.1
2. Microsomes	0.0	0.0
III. *Amino Acid Metabolizing Enzymes*[3]		
A. Tryptophan oxygenase	< 1.0*	19.5
B. Tyrosine transaminase	< 30.0	964.0
C. Phenylalanine hydroxylase	< 0.5	6.5
D. Threonine dehydratase	< 15.0	4340.0
E. Histidase	< 2.0	74.5
F. Arginase	860.0	103,000.0
G. Ornithine transcarbamylase	0.0	200.0
H. Glutamine synthetase	68.0	495.0
I. Aspartic acid transcarbamylase	681.0	173.0
J. Cysteine desulfhydrase	< 15.0	269.0
IV. *Purine Metabolizing Enzyme System*[4]		
A. Xanthine oxidase	0.0	0.006 ± 0.002
B. Uricase	0.0	0.052 ± 0.003
V. *Tricarboxylic Acid Cycle Enzyme*[5]		
A. Malate dehydrogenase		
1. Total	86.0	388.0
2. Mitochondrial	37.0	129.0
3. Cytoplasmic	49.0	258.0

[1] Specific activity µmoles of substrate metabolized/mg N_2/1 hr at 37°C.
[2] Specific activity µmole of cytochrome c reduced/g protein/min.
[3] Specific activity µmole product/g dry weight tissue/hr at 38°C.
[4] Specific activity µmole uric acid produced or destroyed/mg N_2/min.
[5] Specific activity µmole substrate/g wet weight tissue/min.
* Values following < sign indicate lowest extent of reaction that could be detected by the method used.

Thus, following the sequence of events (Fig. 1) after diagnosis and metabolic profiling of the tumor and its host, we might pick out the following facts about this "case": the tumor requires asparagine, arginine and serine but lacks the ability to synthesize them; the tumor lacks the catalysis necessary to metabolize histidine and ornithine. A proposed therapy could then be based upon (1) deprivation of amino acids essential to the tumor by destroying them, using high blood levels of the purified enzyme, i.e., asparaginase, arginase, serine dehydratase; and (2) poisoning of the tumor with high blood levels of ornithine and histidine. If animal tests eliminated one or more of these agents, we then, after peer evaluation, might proceed with one or several of those "drugs" available to us.

This simplistic presentation avoids many difficulties that can be anticipated. However, it does serve to convey the concept that a rational alternative to a universal therapeutic instrument can be conceived and may be made to serve man in dealing with cancer.

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The Patient as an Education Participant in Health Care

TECHNOLOGICAL ADVANCES in health care, such as new drugs and use of space-age hardware in diagnosis and treatment, require all professional members of the health care team to be trained and educated to the highest possible degree. But, what about education for the most important member of the team—the patient?

Patient education involves more than just relaying information. It is guiding an individual to perceive, interpret and integrate health information to bring about behavioral changes. It involves the theories of education, the principles of behavior modification and the active participation of the patient, and, if possible his family.

The patient, the health care institution and the physician can all benefit from patient education. Instruction may reduce readmission days, provide more informed and cooperative patients, allow a more professional use of staff time and remove some of the burden of patient teaching from already overworked physicians.[1] It also may facilitate postdischarge management of treatments and conditions to which the patient and his family must adapt. Benefits to the physician in a planned program of patient education are described in a different light by Levoy.[2] He views the services provided by physicians (knowledge, skill and experience) as intangible and feels that most physicians take for granted that patients appreciate these skills. Levoy proposes that the patient without education sees "fees" rather than "value," "time or lack of it" rather than "results" and "disinterest" when he should see "more benefits for me."[2]

Patient education is not a new development in health care delivery. It is as old as the doctor-patient relationship. Instructions on a one-to-one basis have always been given simultaneously with medical treatment and nursing care. What is new is the innovative and creative ways in which patients are now being educated. While not yet commonplace, multidisciplinary-team teaching, group instruction and programmed learning are rapidly becoming integral parts of patient education programs. This is due in part to an increasing shortage of physicians and nurses and in part to the greater responsibility for patient teaching felt by those in all health fields. Both the physician and the nurse have always delineated one of their duties as teaching.[3]

Recently, other health professionals have become involved. With physicians in charge, teams have been formed which include nurses, pharmacists, dietitians, occupational and physical therapists, referral coordinators and family nursing services.[4] The newest member of this team is the health educator who serves as a resource to other team members by providing skills in educational methodology, planning, implementation and evaluation. The health educator can coordinate and formalize the efforts of the many disciplines involved and maintain open lines of communication between them, thus assuring an organized program. Each member contributes his expertise and special skill to promote the highest possible level of patient care and education. Apart from this type of formalized system, it probably is safe to assert that everyone from chief-of-staff to housekeeper who comes into contact with the patient is a patient teacher, either by his attitude or actual instruction.

Although pamphlets still are extensively employed in patient education, they have been shown in some studies to be effective only in reinforcing beliefs already held or in producing attitude change;[5, 6] behavioral change does not necessarily follow. Also, other media are now used in patient teaching. Audio-visual aids can inform patients about specific diseases, possible side-effects of a particular therapy or directions for a specific therapeutic regimen.[7] Programmed learning booklets,[8] teaching machines,[9] closed-circuit television[10] and slides with synchronized tapes[11] have all been used as part of inpatient programs. In the near future, the video-cassette may assist the physician in teaching patients in his office.

The location of patient education also has changed from the bedside and office. Patients are being taught in classrooms,[12] waiting rooms[13] and the home. In addition to providing home care and instruction for patients and their families, public health and visiting nurses now assist in evaluating education given in the hospital or office. They are in an excellent position to see if suggested changes in health behavior actually have been carried to the home. Evaluation is an extremely important aspect of any education program. Just because instruction has been given, a behavioral change will not necessarily occur.[14]

As hospitals,[15] physicians' offices and clinics fulfill a broadened role as community health centers, they also take on responsibility for health education.[16] This is a natural development in hospitals, since they are traditionally the scene for training health professionals. Hospitals contain all the components necessary for successful education of the patient: the teachers (doctors, nurses, social workers, pharmacists, dietitians and therapists), the resource material and the learners (patients, families, friends and the public served by the institution).

Patients with many different types of illness require education, and several programs have been created to meet their specific needs. Some of these ongoing programs serve stroke,[17] burn,[18] diabetic[4] and cardiac[19] patients. Others include patients with spinal cord injuries,[20] with pacemakers,[21] on Warfarin therapy[9] and requiring hemodialysis.[22]

Education has consistently played a major role in the prevention of cancer,[23] and it is no less important in treatment and rehabilitation. Because cancer can affect every aspect of a patient's life, all possible forces should be mustered to help him cope with any developments in the course of his treatment and his return to his community. Cancer patients share many of the same feelings of other patients for whom education has been deemed essential. These responses include initial fear for survival, depression, fear, denial, anger, apprehension and regression.[24, 25]

Education for the cancer patient should begin with basic information about his particular kind of cancer and include the reassurance that cancer is not always the fatal disease it was previously thought to be. Hospital teaching for the cancer patient should initially orient him to the institution, its clinics and departments. Upon admission to a specific division, efforts should be made to acquaint the patient with the service and its personnel. Any type of diagnostic procedure and the reason for it should be thoroughly explained. Preoperative and postoperative instruction is essential. Specific programs should be available for ostomy, mastectomy and laryngectomy patients and those treated with radiotherapy and chemotherapy. These programs could involve community groups such as Ostomy Clubs, Nu-Voice Clubs and Reach-to-Recovery, as well as hospital personnel and resources.

Although patient instruction has been a part of the doctor-patient relationship for centuries, innovative educational techniques are increasing the efficiency and effectiveness of these efforts and now involve more aspects than relaying information. Patients, their physicians, other health professionals and the health care facility benefit from systematic patient-education programs. Miss Monaco and Mrs. Salfen are Health Educators and Doctor Spratt is Director of the Cancer Research Center and Chief Surgeon at Ellis Fischel State Cancer Hospital. This work was supported by Public Health Service Grant #CA-08018-03.

Successful and effective educational endeavors are not the result of fragmented haphazard efforts. They require formalized, documented programs and the cooperation of various health disciplines. Structured programs assure continuity in spite of changing personnel, inform other health professionals when the patient has left the institution and enable an evaluation of program effectiveness and efficiency.

Patient education involves more than the communication of information. The importance of promoting understanding also has been emphasized. Some say each patient should have "What does he mean?" imprinted on his forehead as a reminder to health professionals. This thought is often considered, but seldom voiced.[2]

The patient, physician and health care institution all benefit from organized educational programs. In addition to allaying the patient's fears and apprehensions,[26] education also may be necessary for his medical management. Often, if treatment initiated during hospitalization is to be successful, the patient and his family must be responsible for his postdischarge care. They also constitute the largest untapped reservoir of health manpower available in an era of rising costs and increasing shortages of health professionals. Knowledgeable patients can participate in their own care and make more logical de-

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Guanyl Cyclase Activity in Morris Hepatomas

7787, 7795, 7800 and 9618A-2

THE ISOLATION of guanosine 3′,5′-monophosphate (cyclic 3′,5′-GMP) from biological material[1] stimulated intensive research to determine its biological function. Cyclic 3′,5′-GMP has been shown to mimic the effects of adenosine 3′,5′-monophosphate (cyclic 3′,5′-AMP) in stimulating hepatic glucose release, glycogenolysis, gluconeogenesis and tyrosine aminotransferase induction.[2] Enhanced glycogenolysis was associated with increased phosphorylase activity and decreased glycogen synthetase activity.[2, 3] Both cyclic nucleotides increase short-circuit current in the isolated toad bladder, but only cyclic 3′,5′-AMP affected water permeability.[4] Pagliara and Goodman[5] reported that the cyclic purines have opposing effects on renal cortical glutamate concentrations, thereby mediating alterations in acid-base status. Ball *et al*[6] have shown that extracellular cyclic 3′,5′-AMP levels are increased with *beta* adrenergic agents, whereas cyclic 3′,5′-GMP levels are increased by *alpha* adrenergic agents. George *et al*[7] reported independent changes in the tissue levels of cyclic 3′,5′-GMP and cyclic 3′,5′-AMP following cardiac perfusion with acetylcholine and isoproterenol.

The cyclic nucleotides that function in metabolic regulation in the normal cell have potent growth inhibiting properties. It has been postulated that alterations in the enzymes controlling the cellular level of cyclic nucleotides may lead to the decreased specialized function observed after neoplastic transformation. This paper reports decreased activity of the cyclic nucleotide synthetase, guanyl cyclase, in a transplantable carcinoma. Doctor Northup is a Postdoctoral Fellow, Doctor Brown is Chairman and Mr. Chattopadhyay is a Scientist in the Biochemistry Section of the Cancer Research Center. Mr. Barthel is now a Sophomore Medical Student at Baylor College of Medicine, Houston, Tex. Doctor Morris is Research Professor of Biochemistry at the Cancer Research Unit of Howard University, Washington, D. C. This investigation was supported by an American Cancer Society Clinical Investigation Grant and U. S. Public Health Service Research Grant # CA-10729 (HPM).

Low concentrations of cyclic 3′,5′-AMP inhibit growth of HeLa and Strain L cells.[8] Gericke and Chandra[9] reported that the inhibition of NKL-lymphosarcoma by cyclic 3′,5′-AMP was dose dependent. Heidrick and Ryan[10] found that the growth of four tumorigenic cell lines was significantly inhibited by cyclic 3′,5′-AMP, whereas a nonmalignant cell line was affected only slightly. Dose dependent cyclic 3′,5′-GMP inhibition was nonselective, affecting both tumorigenic and nonmalignant cell lines.[10]

The mechanism by which cyclic nucleotides inhibit cell growth is unknown. Cyclic 3′,5′-AMP, due to its membrane impermeability, has been considered to be a relatively inert chemical when applied to intact cells or injected into whole animals.[11] Bürk[12] postulated that the regulation of intracellular levels of cyclic 3′,5′-AMP differed in the normal and neoplastic cell. Thus, an alteration leading to a lower level of cyclic 3′,5′-AMP might lead to the increased aerobic glycolysis and decreased specialized function observed after neoplastic transformation. The similarities of the effects of the cyclic purines on tumor growth and glucose metabolism suggest that the intracellular level of cyclic 3′,5′-GMP also may be affected by neoplastic transformation. This interpretation has been investigated by measuring guanyl cyclase activity in preparations of normal rat liver, Morris hepatomas and host liver.

The hepatomas have been described by Nowell *et al*[13] and Miyaji *et al.*[14] Hepatoma 7800 is a diploid hepatocellular carcinoma consisting of a mixture of well and intermediate between well and highly differentiated cells. Hepatomas 7787 and 7795 have been classified as having abnormal chromosome numbers but with minimal chromosome changes.[13] Hepatoma 7787 is intermediate between a well and highly differentiated hepatocellular carcinoma, with 44 chromosomes and minimal structural changes. Hepatoma 7795 is a hepatocellular carcinoma intermediate between well and poorly differentiated, with 46-47 chromosomes and minimal structural changes.[13,14] Hepatoma 9618A-2 is a fast-growing, poorly-differentiated hepatocellular carcinoma with 40-41 chromosomes derived from generation 5_4 of the diploid hepatoma 9618A.

TABLE 1

DESCRIPTION OF MORRIS HEPATOMAS

Morris Hepatoma	*Transplant Generation*	*Age of Tumor (days)**	*Growth Rate*	*Tumor Mass (g)*
7787	16	118	Slow	2.5
		126		7.6
		131		1.9
7795	45	77		
		84	Medium	13.0
				13.6
7800	54	62	Medium	24.8
		63		25.0
		76		25.0
9618A-2 .	22	58	Fast	35.0
		64		23.0

* Each time given represents a different animal studied. Age was determined from the date of inoculation.

Materials and Methods

The sodium salts of GTP and cyclic 3′,5′-GMP were obtained from P-L Biochemicals, Milwaukee, WI and Boehringer Mannheim Corporation, New York, N. Y., respectively. Tritium labeled cyclic 3′,5′-GMP, obtained from Schwarz BioResearch, Van Nuys, Cal., had a specific activity of 1.1 Ci per mmole. Alpha-^{32}P-GTP was purchased from International Chemical and Nuclear Corporation, Irvine, Cal. The specific activities of the two samples used in this study were 0.87 Ci per mmole and 2.5 Ci per mmole.

Female buffalo rats with intramuscular bilateral tumors in the hind legs and nontumor-bearing control animals from identical stock were obtained from Howard University, Washington, D. C. Upon arrival, they were kept in separate cages in an isolated, temperature-controlled room. Commercial chow and water were supplied *ad libitum*. The tumors examined, transplant generation, age and mass of the tumors are presented in Table 1.

The animals were sacrificed by decapitation. After exsanguination, liver and tumors were excised and placed in cold 0.25 M sucrose. Tumors were freed of visible necrotic tissue and washed free of blood with the same ice-cold solution. Tissues were then blotted, weighed, minced with scissors and placed in three volumes (v/w) of 0.05 M Tris-HCl, pH 7.6. Each tissue was separately homogenized in an ice-chilled, Potter-Elvehjem-type glass homogenizer fitted with a tight polytetrafluroethylene (Teflon) pestle. The homogenate was centrifuged in a refrigerated Sorvall RC-2 centrifuge at 2,200 × g for ten minutes. The supernatant was decanted and recentrifuged at 37,000 × g for 30 minutes. The 37,000 × g supernatant was decanted and assayed for guanyl cyclase activity.

Guanyl cyclase activity was determined by a modification[15] of the radiometric assay of White and Aurbach.[16] In a final volume of 0.075 ml, the reaction mixture contained 1.2 mM GTP, 5×10^5 cpm of *alpha*-^{32}P-GTP, 6.0 mM $MnCl_2$, 2.67 mM cyclic 3′,5′-GMP, 20 mM caffeine, 0.1 mg of bovine serum albumin, 50 mM Tris-HCl (pH 7.6) and enzyme. Reactions were initiated by the addition of enzyme after a five-minute preincubation period at 30 C. The samples were incubated for 15 minutes at 30 C in a stationary water bath. The reactions were terminated by the addition of 0.02 ml of 0.1M sodium pyrophosphate and five-minutes heating in a boiling water bath. Losses of ^{32}P-cyclic 3′,5′-GMP during purification were corrected by recovery of ^{3}H-labeled cyclic 3′,5′-GMP added at the end of the incubation period.

Cyclic 3′,5′-GMP was separated from the assay mixture by the chromatographic method of White and Zenser.[17] Column effluents containing cyclic 3′,5′-GMP were collected in scintillation vials. Fifteen millimeters of scintillator solution[18] were added to each vial. The samples were radioassayed in a Packard TriCarb liquid scintillation spectrometer. Sample blanks to correct for radioactive impurities in the labeled substrate were included in all assays. Duplicate determinations using several different protein concentrations of each sample were made. The amount of protein in the enzyme preparations was determined by the microbiuret procedure.[19]

Guanyl cyclase activity was expressed in microunits (μU) of cyclic 3′,5′-GMP formed per milligram of protein. One μU is defined as the amount of enzyme catalyzing the formation of one pmole of cyclic 3′,5′-GMP per minute at 30 C.

RESULTS

To insure accuracy in determining the amount of ^{32}P-cyclic 3′,5′-GMP formed, it was desirable to obtain sample ^{32}P-radioactivities of at least 50 cpm above that of the blank. However, previous studies[15] had shown that the guanyl cyclase reaction became substrate-limited by the action of a nucleotide triphosphate pyrophosphohydrolase when the incubation was prolonged. An incubation period of 15 minutes was chosen for routine analysis to satisfy these requirements. The reaction rate was linear with protein concentration over the range investigated (approximately 0.15 mg to 0.75 mg).

Guanyl cyclase activities in normal liver, Morris hepatomas and host liver are tabulated below (Table 2). Daily variation in cyclic guanylate formation was observed. This may be attributable to variation in the nutritional or hormonal state of the animals. Comparison, hence, may be made by assaying all preparations simultaneously or by assaying control and experimental tissues at the same time. The latter method was chosen.

Statistical analyses of the data (Table 2) indicated that guanyl cyclase activity of the livers of rats bearing hepatomas 7787 and 9618A-2 was significantly higher than that in normal liver. No significant difference between normal liver and liver of rats bearing hepatomas 7795 and 7800 was found. Guanyl cyclase activity was not detectable in Morris hepatomas 7795, 7800 and 9618A-2. Morris hepatoma 7787 exhibited approximately 20% of the guanyl cyclase activity found in normal or host livers.

TABLE 2

GUANYL CYCLASE ACTIVITY OF NORMAL LIVER, HEPATOMA-BEARING RAT LIVER AND MORRIS HEPATOMAS

Tissue	*μU Cyclic 3′,5′-GMP Formed per mg of Protein**
Normal Liver	10.4 ± 4.5
Host Liver	13.2 ± 6.5†
Hepatoma 7787	1.9 ± 1.3†
Normal Liver	8.1 ± 3.3
Host Liver	11.0 ± 3.4
Hepatoma 7795	not detectable
Normal Liver	6.6 ± 2.0
Host Liver	6.6 ± 1.5
Hepatoma 7800	not detectable
Normal Liver	7.4 ± 5.1
Host Liver	9.0 ± 5.3‡
Hepatoma 9618A-2	not detectable

* Values given are the mean and S.D. of six or more assays.
† $p < 0.05$
‡ $p < 0.01$

Calcium has been shown to stimulate guanyl cyclase activity.[20] Although this effect was confirmed in our study of normal and host liver preparations, no detectable guanyl cyclase activity in the presence of calcium was found in hepatomas 7800 or 9618A-2.

DISCUSSION

The biological significance of guanyl cyclase and cyclic 3′,5′-GMP is unknown. Guanyl cyclase has been found to be distinctly different from adenyl cyclase in subcellular distribution, substrate specificity and metal activator.[16] The structural similarity between cyclic 3′,5′-AMP and cyclic 3′,5′-GMP suggests a possible regulatory role for the latter nucleotide. Indirect evidence of a relationship between hormonal condition and urinary cyclic nucleotide excretion has been presented.[21]

The rationale for very low or nondetectable levels of guanyl cyclase activities in hepatoma tissues is not understood. These differences could be due either to a masking or deletion of enzymatic activity or to the absence of a particular cell type in the hepatoma tissue.

If guanyl cyclase occurs in the liver hepatocyte, then it would be expected to occur in the hepatoma which was derived from that cell type. The presence of guanyl cyclase activity in one of the hepatomas assayed discourages attributing these results to the absence of a particular cell type. Studies to determine whether there is an inhibitor in the hepatoma are being undertaken.

It appears that different hepatoma lines may have very low basal amounts of guanyl cyclase activity and that there may be a negative correlation between this and growth rate. This finding would be in sharp contrast to earlier studies[22] which showed a positive correlation between adenyl cyclase activity and growth rate. An attractive interpretation is that opposing changes in the activity of the nucleotide cyclases may mediate the loss of inter- and intracellular control exhibited in oncogenesis.

Recent evidence[8–10, 12] indicates that the cyclic nucleotides may have an important function in the regulation of cell growth. The pattern of growth inhibition affected by the cyclic nucleotides varies with the cell line. Heidrick and Ryan[10] demonstrated that cyclic 3′,5′-GMP was an effective inhibitor of cell growth for all tumor lines studied at concentrations as low as 0.12 mM. Consideration of these findings in view of very low or nondetectable levels of guanyl cyclase activity in the hepatoma tumors indicates a need for further examination of this system in these and other tumor types.

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Patient as an Education Participant

(Continued from page 933)

mands on the health care institution's services, thus allowing greater economy and efficiency of operation.[27]

However, perhaps the most important reason for patient education is that responsibility is not ended when acute illness is over.[28] The learning process has as its ultimate goal the restoration of the individual to optimal functional performance and his reintegration into society.[20]

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SDI (Selective Dissemination of Information)

In this discussion of the development of the concept of Selective Dissemination of Information (SDI) in a medical library, the author describes the basic components of the system and the various types of services. He suggests that all special libraries should initiate some form of SDI system, pointing out the resulting benefits to both the librarian and user. Mr. Hahn is Librarian at Ellis Fischel State Cancer Hospital and the Cancer Research Center. This work is supported in part by a grant from the American Cancer Society, Missouri Division.

THIS PAPER is designed to define and differentiate between various forms of selecting dissemination of information systems (SDI) and to give the reader an understanding of the concepts embodied in the term.

During the past ten years, a number of service concepts have evolved in librarianship that cast the librarian in a more active role than is traditional. Perhaps the most challanging of these is that role requiring the librarian to determine his users' information interests and needs in advance of demand and to supply them automatically. In other words, the talents of the good acquisitions librarian are here harnessed to those of the good reference librarian. To complete the team of four, we need only to add a computer specialist and a good indexer. Not all of these talents are equally necessary, of course. Certainly, the ability to search must be combined with the ability to anticipate user interests.

A number of terms, such as "current awareness," "courtesy awareness" and "selective dissemination of information," have been used to describe a system whereby a librarian or information specialist interfaces with a user and a body of information in a preplanned way so that the user is automatically informed of the pertinent information available in his area.

A survey of the literature reveals that both the term and the concept are relatively new. In medical library texts, Key[1] makes no mention of the concept and Annan and Felter[2] make only a passing reference in regard to commercial libraries. During the dozen years from 1958 to 1970, however, the concept began to appear in various guises. "Objectives and Standards for Special Libraries," published in 1964, recognized the responsibility of the special library to bring items of special pertinence to the attention of its patrons by "acquisition lists of new materials, selective lists and other bulletins."[3] Earlier in 1964, Menzel characterized a current awareness service as a kind of "standing order" for all new information on a given topic.[4] A January, 1967 report by the Library Study Committee of the Association of American Medical Colleges to the National Library of Medicine proposed a new philosophy of active service that could "expand and develop current-awareness tools, introduce selective dissemination of information. . . ."[5]

These sentiments have now spread widely and have become an integral service function of many libraries. The sophistications of the system may vary widely, but must consist of the following elements:

1. Librarian or information specialist
2. User
3. Data
4. User profile
5. Match of data against profile
6. Dissemination of matched data
7. Feedback.

Fig. 1 is a flow chart illustrating a simple form of an SDI system.

SDI systems may be manually operated by a single librarian working with a small-user population or may be computer-generated lists from a large data bank, such as *Chemical Abstracts* or *Biological Abstracts.*

The literature suggests that a distinction may be drawn between three types of information dissemination. "Current awareness" is essentially a nonselective service from which the user can expect to get only a small percentage of useful citations. "Courtesy awareness," a term coined by Meltzer, refers to "staff mentally keeping an interest profile of particular users."[6] This, then, constitutes a means of informing the user only

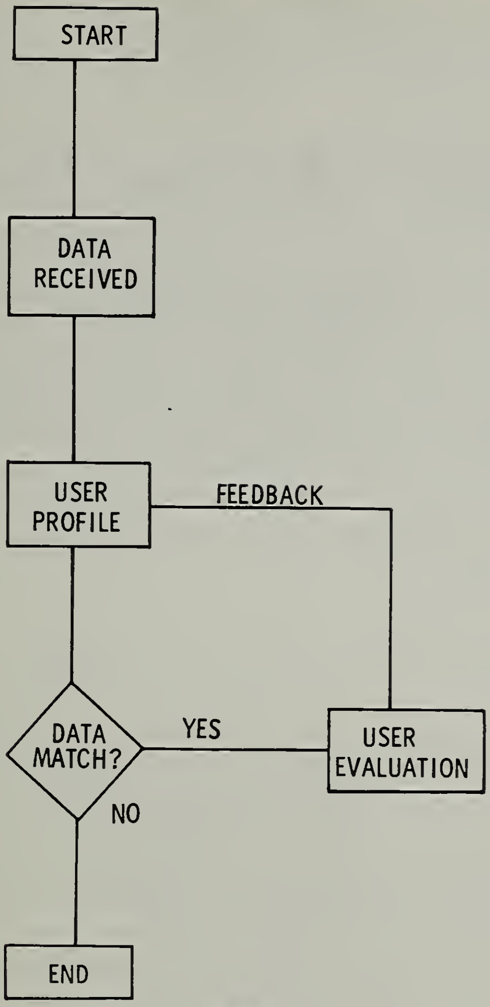

Fig. 1

of those items which the librarian is able to recognize as potentially useful. The third type, of course, is a formal SDI system in which a user profile is created and updated continuously to provide the user with a high percentage of useful citations.

Some form of SDI system should be an aim of all special libraries. The particular form will depend upon a number of factors such as cost, staff time available, user population, size and other factors. Duval, in a 1968 article, insists that the librarian "must accept the obligation for doing whatever research is necessary to give him an insight into the best possible ways for him to disseminate the information that his collection harbors."[7]

The primary importance of an SDI system is that it allows the librarian to give his clients quicker access to pertinent literature at less cost (for the user) in time and effort, but the great secondary benefits that accrue from an SDI system should not be overlooked. The librarian is no longer passively engaged in filling requests for published articles, but is actively engaged with the user in creating and maintaining an accurate interest profile. This kind of user-librarian cooperation is bound to result in greater understanding and knowledge of each other's needs, concerns and abilities. The special librarian's importance lies in his ability to provide service, and an SDI service is one of the most useful he can supply.

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A program to train 96 practitioners has been announced by the U. of Maryland School of Nursing. Financed by a $467,000 government grant, the nurse trainees, all RNs, will be taught to take medical histories, give medical examinations and provide home care for persons with chronic illnesses. School officials said the question of professional liability for graduates of the three-year experimental program "is a very gray area" at this time.—*American Medical NEWS*

NANCY SCHLAPPER, R.N. *and*
MARY HAMILTON, R.N., *Columbia*

Nursing's Contribution to the Care-Cure Dyad

THE FOCUS OF NURSING at Ellis Fischel State Cancer Hospital has broadened to view "total patient needs." Previously in most medical care facilities, nurses have limited themselves to performing fragmented objective procedures as ordered by the physician. Our nurses are confronting a new role as instigators and directors of the care process. The physician is recognized as manager of the cure process, and nurses participate in this role by carrying out the physician's directives. However, nursing involves an independent function, one which entails a different focus and form than it has in the past.

Professional nurses seem to have given up their role as "direct givers of bedside care." The nursing team consists of members with varying degrees of skill and is replacing the single nurse who was once "all things to all patients."

Professional nurses are supervisors and planners of care—care that encompasses health promotion, prevention and treatment of disease or disability and rehabilitation that involve teaching, counseling and emotional support.[1] To accomplish this, the nurse must be free of desk work and housekeeping chores in order to circulate among and communicate with the patients, staff and physicians. At Ellis Fischel, we have attempted to put theory into practice by arranging the organizational set-up so the nurse is able to function in an expanded role. A ward manager is responsible for transcribing orders, circulating them to the correct area, communicating with other hospital departments and ordering supplies. A ward secretary greets visitors, answers the phone and handles routine chart and record keeping work. A utility aide cleans patient units, utility rooms, dressing rooms and floor kitchens. A courier assists in transporting patients to and from other departments for diagnostic tests and treatment. If relieved of those tasks which have traditionally occupied a large proportion of her time, the nurse is able to devote more of her day to supervising and planning.

The authors state that a patient has a right to expect a certain quality of care during his medical treatment and discuss what that care should encompass. They emphasize the nurse's contribution. Mrs. Schlapper is Assistant Director of Nursing and Mrs. Hamilton is Coordinator of In-service Education at Ellis Fischel State Cancer Hospital.

To determine what Ellis Fischel nurses are doing for their patients, let us examine an individual situation. A patient is admitted to one of three patient units after a thorough evaluation in the outpatient clinic. Early in his hospitalization, a nursing assessment is conducted which includes information about the patient's expectations of nursing care and treatment outcome, his likes and dislikes and his general social, psychological and physical conditions. Based upon the information gathered, the professional nurse uses her monthly reading time to review professional literature in order to learn more about the patient's condition and factors which might affect his recovery. The nursing team members then meet to discuss the implications for care. From this, a written plan of nursing action evolves. During the patient's hospitalization, the nursing care plan is reviewed, evaluated and revised in order to be continually responsive to the patient's needs.

The care philosophy of the Nursing Department is in accordance with the statement of the National League for Nursing concerning what a patient has a right to expect:

1. That he will receive the nursing care necessary to help him regain or maintain his maximum degree of health.
2. That the nursing personnel who care for him are qualified through education, experience and personality to carry out the services for which they are responsible.
3. That the nursing personnel caring for him will be sensitive to his feelings and responsive to his needs.

4. That, within the limits determined by his physician, the patient and his family will be taught about his illness so that the patient can help himself and his family can understand and help him.

5. That plans will be made with him and his family or, if necessary, for him so that, if possible, continuing nursing and other necessary services will be available to him throughout the period of his need. These plans will involve the use of all appropriate personal and community resources.

6. That nursing personnel will assist in keeping adequate records and reports and will treat with confidence all personal matters that relate to the patient.

7. That efforts will be made by nursing personnel to adjust the surroundings of the patient so as to help him maintain or recover his health.[1]

The patient has a right to expect that the nurse will contribute to the cure process. More importantly, he has a right to expect that the nurse will be the planner and director of the care process through utilization of professional knowledge, judgment and teamwork.

Reference

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The various medical complications in patients who abuse drugs will be examined in depth at a conference on December 7 in Washington, D. C. at the Washington Hilton Hotel. The Conference is sponsored by the Committee on Alcoholism and Drug Dependence of the American Medical Association.

William M. Lukash, M.D., White House physician and Chief of Gastroenterology at Bethesda Naval Hospital, will serve as Conference Coordinator. He said, "The emphasis at the conference will be on clinical problems that develop from the patient's abuse of drugs. We will stress recognition and treatment of the special problems drug-abusing patients present."

The Conference is open to all physicians and other health professionals. Physicians in attendance will earn credits toward continuing education requirements. The program is acceptable for seven credit hours in Category II for the physician recognition award of the AMA and seven elective credits by the American Academy of Family Physicians.

Problems to be examined include Pulmonary, Cardiac, Neuromuscular and Skin diseases related to drug abuse; Surgery in Addicts; Maternal Drug Use and its implications for the infant; and diseases caused by dirty needles and other unsterile equipment used in drug injections. Special panels will consider treatment of overdose cases and hepatitis.

Jerome B. Jaffe, Director of the Federal Government's Special Action Office for Drug Abuse Programs, will speak on the development of treatment resources for drug abusers and drug dependent persons throughout the country.

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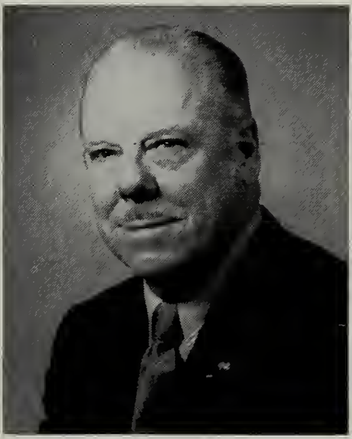
President's Message

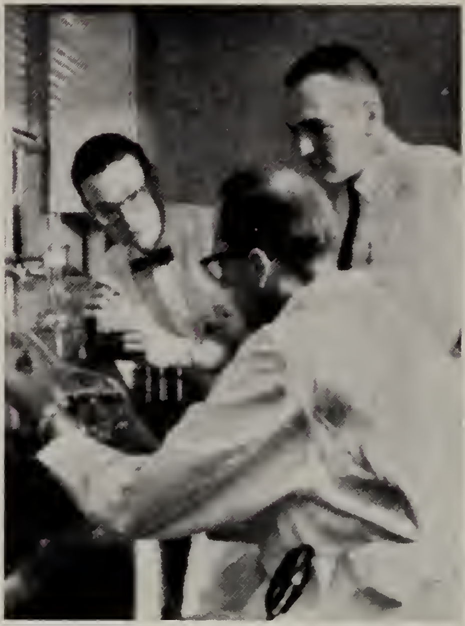
Keep Christ in Christmas



Walter T. Gunn, M.D.

Every year, Christians deplore the improper celebration of Christmas when Christmas is actually upon us. We blame the storekeepers, the advertisers, radio and television, the public schools—everybody but ourselves. Yet, people in these fields strive to give the public what will attract them and what they will buy. Christmas sales campaigns are planned months ahead of time and are based on what was successful in the past.

When Christmas is over and when it is too late to do anything about it, we grumble about how Christ has been removed from Christmas. By the next Thanksgiving Day, we have usually forgotten last year's mistakes. For some time now, many people have been working to put Christ back into Christmas—to make the Christ Child and His birthday uppermost in the minds and hearts of people. Let that be our goal this Christmas season.



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Telephone: (Area Code 816) 561-1498

Woman's Auxiliary

For You at Christmas

By

Esther Baldwin York

For you, we wish good things at Christmas, and
most especially these: time to pause and, for a little while,
recapture the magic of your childhood Christmases . . .
someone to care and share with you Christ's Birthday . . . the supreme
joy of making happy someone who is less fortunate than you
. . . and, best of all, the deep heart-wonder
of finding anew the stable and the star.

With the hope that the thoughts expressed by Esther Baldwin York will touch every member of the Missouri State Medical Association and the Woman's Auxiliary, I extend sincere Christmas greetings. May the New Year bring inspiration and blessings for all and guidance in our daily efforts toward assuring better health care for everyone.

Mrs. Keith D. Jones
President

EDITORIALS

ADULT NURSE PRACTITIONERS

During the past year, the (St. Louis) Medical Society has been asked to endorse a variety of projects relating to the establishment of training and educational programs in the para-medical field.

Inasmuch as there has been a stated interest in physicians' assistants and like programs, the Council has generally approved and granted endorsement.

Currently, the Council has under "special" study a program, locally sponsored, to train "Adult Nurse Practitioners." The project description proposes a rather broad and comprehensive course of instruction resulting in the development of what would appear to be a physician substitute. Initial study suggested a cautious approach and direct consultation with the sponsors of the program.

This rash of enthusiasm for a multiplicity of new programs, personally, gives me pause for thought.

If I had my "druthers," I would like to see more nurses—doing more nursing—more patient care with more efficiency and more proficiency.

I would like to see more technicians, more medical secretaries, more clecks—appropriately trained.

I would like to see more dedication to the medical task.

I would like to see a cessation of the trend toward the acceptance of partially-trained substitutes in lieu of properly and adequately trained ancillary personnel.

Health care is not enhanced by the downgrading of responsibility to persons of successively lower levels and terms of education. Rather, we must encourage our educators to upgrade; and we must assist them in the encouragement of young people to seek careers in the many rewarding phases of medicine and to accept the levels and terms of education.

The health delivery industry is certainly the one field where marginal personnel are unacceptable.

F. EUGENE PENNINGTON, M.D.
President, St. Louis Medical Society
Reprinted from *St. Louis Medicine*

TIT FOR TAT

We are pleased to anticipate the ultimate free distribution of scotch whiskey. We feel that this boon to mankind will fall close on the heels of the implementation of the Kennedy plan to make medicine a totally public affair. Such a logical and compassionate man as the Senator from Massachusetts would certainly not lag behind in his desire to make all good things freely available to the American public.

In this day of turmoil and uncertainty, it will be refreshing to see a man match his personal generosity to his public generosity. Too often it is said that men in high places are too loose in their expenditure of the money we all give to sustain our country and it is cynically intimated that they do this to protect their own fortunes. We will watch with interest the obvious response that a man of the Senator's generosity must make. If private services must all become public with no provision for a continuation of the traditionally private flavor of American Affairs, we must anticipate a matching move of generosity on the part of such a great human benefactor.

I hope we will be forgiven our anguished outcry at the prospect of the snatching away of our traditional rights. We will have a great need of this free whiskey if this mighty and generous Senator succeeds.

In order to keep the distribution of the free scotch whiskey fair, I would anticipate that there would be a board of consumers to mess about in the distilling, cooperage and aging rooms of all scotch purveyors. In addition, each distiller would, of course, have a committee of his competitors to sit in review of his ability to make scotch. Of course, the price of scotch would be set by a government committee so that such irrelevant matters as aging, skill in production, tradition of quality, would not be allowed to influence the price. And, in the end, the price to the government and taxpayers would be controlled by luring myriad clerks and inspectors to supervise the entire effort. The money to support this supervisory effort will, of course, come from general revenues so that it will not be included in the price of the scotch to the government. Even though they might appear to double or triple the cost, be assured that adroit bookkeeping will make clear the exact costs of the scotch only, ignoring the overstructure so essential in keeping this public beneficence fair for all.

Forms in triplicate, long lines and public windows with functionaries of varying disposition behind each will not deter the American Public in their desire for free scotch. Please be advised, dear Senator, that such generosity would not go unnoticed.

Unfortunately, scotch whiskey is all made in Scotland and I don't know if we can impose all these measures to assure the quality to the consumer. But, on the other hand, perhaps we can import its production to our Country just as the British National Health Service is to be imported. Something may be lost in the transfer, but think how much can be made up in expansion of the American Bureaucracy.

Even though no free scotch is available, I hope no Doctor will be piqued and stop giving his time to no pay patients, free clinics or teaching services. I hope no Doctor will regret his years of services at City or County Hospitals because his years of service to mankind with little or no pay were not eased with free scotch. Observe with equanimity the dawn of the "Brave New World." Perhaps the coming years will astound you if you remain apathetic and unconcerned.

N. B. WHITE, M.D.
St. Louis County Medical Society Bulletin

Continuing Education Coming Events

Jan. 19-20	**Ob-Gyn Conference** Continuing Education, M.U. School of Medicine Columbia 65201
Jan. 29-30	**Symposium: Cardiac Auscultation** Postgraduate Medical Study K.U. School of Medicine, Kansas City, Kan. 66103
Feb. 1-2	**Symposium: Diagnostic Cytology** Postgraduate Medical Study K.U. School of Medicine, Kansas City, Kan. 66103
Feb. 7	**Conference: Office Pediatrics** Continuing Education, M.U. School of Medicine Columbia 65201
March 12-14	**Symposium: Pediatrics** Postgraduate Medical Study K.U. School of Medicine, Kansas City, Kan. 66103

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County Society News

FIRST DISTRICT

COUNCILOR
JOHN N. MARTIN, M.D., ST. JOSEPH

Grand River Medical Society

The October meeting of Grand River Medical Society and its Woman's Auxiliary was held at the Strand Hotel in Chillicothe on October 12. A social hour preceded the dinner.

The speaker for the scientific meeting was Berneil Andrews, M.D., Kansas City, whose topic was "Prostatic Resections, TURs and GU Problems." A short business meeting followed the program and the following officers were elected for 1973: President, Erroll W. Allen, M.D., Carrollton; First Vice-President, Donald M. Dowell, M.D., Chillicothe; Second Vice-President, John R. Dixon, M.D., Brookfield; Program Chairman, John H. Platz, M.D., Carrollton; and Secretary, Thomas N. Cofer, M.D., Chillicothe.

Members of the Board of Censors and the Nominating Committee are to be named by the President.

It was mentioned that Dr. William A. Fuson of Trenton was to be elected to the Trenton Chamber of Commerce Hall of Fame for October. It also was mentioned that the Delegates to the MSMA Annual Session in 1973 will be elected in November.

The meeting was adjourned.

Frank R. Daley, M.D., *Secretary*

Clay County Medical Association

The Clay County Medical Association met on October 24. The meeting was called to order by President Paul Revare, who introduced Dr. F. Del Muro as a new member.

Minutes of the last meeting were accepted as published. Minutes of the Executive Committee were changed, with the second paragraph to read, "Doctor Revare appointed a committee to nominate officers for 1973. Doctor Boone will be chairman of the committee with the following to serve with him: Doctors Kuenzi, Gauer, Devine, Adams and Perry. They will nominate a president-elect, vice-president, secretary-treasurer, new member to Board of Censors and three members of the Executive Committee."

The annual treasurer's report was read by Doctor Gauer and accepted by unanimous vote.

Dr. Daniel Boone, chairman of the Nominating Committee, gave the committee's report on nomination of officers, as follows:

President, Dr. Daniel Boone; President-Elect, Dr. Felix Pileggi; Vice-President, Dr. Richard Hedges; Secretary-Treasurer, Dr. E. K. Burk: Board of Censors, Dr. Lawrence Hayes; Executive Committee, Drs. Robert Gauer, Carl Slaughter and Donald Fakhoury; Delegates to the MSMA Annual Session, Drs. Donald Kuenzi, Chris Fotopoulos and Richard Bowles; Alternate Delegates, Drs. Truman Schertz, Richard Hedges and Charles Fowler.

The floor was opened for nominations. None were made. Dr. William McPhee moved that the Secretary be instructed to record a unanimous vote for the slate nominated. Dr. Herbert Arst seconded the motion. After discussion, officers for 1973 were elected by unanimous vote.

A letter from Bill Johnson, Ph.D., director of services for the Kansas City School District, was read, asking for assistance in writing guidelines in screening public school children in learning disabilities. An ad hoc committee of all county otolaryngologists, ophthalmologists, pediatricians and representatives from family practice was named, with three of the committee members to meet with Doctor Johnson to discuss the teacher referral system.

Dr. John Balhuizen asked, "When is a quorum a quorum, at the beginning of a meeting or when an issue is voted upon?" Dr. Truman Schertz suggested the matter be discussed at the Executive Committee and a decision be returned to the society. Dr. Herbert Arst asked that the Secretary notify the members present when a quorum is no longer present.

Doctor Schertz reported on the Mid-America Comprehensive Planning Agency and the plans to date concerning hospital facilities in the Northland. He also discussed the new principles of MACHPA, which have not yet been approved at the Area Medical Council level. Doctor Balhuizen asked for additional information on the principles and asked that the society provide more information on MACHPA activities.

Dr. William McPhee moved that discussion be discontinued until more information is available.

There being no additional business, the meeting adjourned.

Robert J. Gauer, *Secretary*

SECOND DISTRICT

COUNCILOR
LYSLE M. BACH, M.D., HANNIBAL

CHARITON-MACON-MONROE-RANDOLPH COUNTY MEDICAL SOCIETY

The regular meeting of Chariton-Macon-Monroe-Randolph County Medical Society was held on October 12 at Woodland Hospital Medical Library in Moberly. President F. L. Harms presided.

The program, which was arranged by Dr. T. S. Fleming, was presented by Richard Martin, M.D., Associate Professor of Medicine and Physiology and Director of the Section of Cardiology, University of Missouri-Columbia Medical Center. He discussed "Acute Myocardial Infarction" and gave helpful suggestions for the primary physician who first sees the patient as well as suggestions for treatment in the coronary care unit of the hospital.

Members present at the meeting were as follows: Drs. D. D. Stuart and F. L. Harms, Chariton County; James E. Campbell and Donald E. Eggleston, Macon County; F. A. Barnett, Monroe County; and Josephine D. Baker, P. V. Dreyer, J. Will Fleming, Thomas S. Fleming, L. E. Huber, G. R. Hudson, R. V. Tompson, W. D. Chute and R. H. Young, Randolph County.

W. D. CHUTE, M.D., *Secretary*

SIXTH DISTRICT

COUNCILOR
WILLIAM D. BRADSHAW, M.D., CLINTON

WEST CENTRAL MISSOURI MEDICAL SOCIETY

The fall meeting of West Central Missouri Medical Society was held at Glenn's Cafe in Butler on October 12.

A social hour and dinner preceded the scientific presentation by Dr. Curtis Todd, Assistant Professor of Obstetrics and Gynecology at the University of Kansas Medical Center. Doctor Todd gave an interesting presentation on the subject of "Laparoscopy."

The business meeting was called to order by the outgoing President, Dr. Glen Reed of Appleton City. Election of new officers for the coming year was held. Dr. Curtis W. Long, Butler, will be President for 1973 and Dr. William W. Haynie, Butler, will be Vice-President. Dr. R. John Torontow, Nevada, will continue as Secretary and Treasurer of the Society.

The next meeting will be held in Nevada in January, 1973.

R. JOHN TORONTOW, M.D., *Secretary*

EIGHTH DISTRICT

COUNCILOR
EUGENE T. HANSBROUGH, M.D., POPLAR BLUFF

JASPER COUNTY MEDICAL SOCIETY

Richard P. Bowles, M.D. of Liberty, Chairman of the Missouri State Medical Association's Commission on Public Affairs, and Mr. Royal O. Cooper of Jefferson City, Assistant Executive Secretary of the Association, were guest speakers at a joint meeting of the Jasper County Medical Society and Auxiliary at Twin Hills Golf and Country Club in Joplin.

Approximately 70 physicians and their wives attended the dinner meeting which was held on October 10.

Basing the program on legislation concerning the medical profession, Doctor Bowles discussed

Approximately 70 physicians and their wives enjoyed the October dinner meeting of the Jasper County Medical Society and Auxiliary in Joplin. *(Left to right)* Mrs. F. Wendell Pense and Doctor Pense of Carthage chat with Dr. Robert L. Willcoxon of Joplin, Jasper County Program Chairman. Guest speaker Richard P. Bowles, Liberty, answers a question from Dr. Richard R. Cohle, Carthage. Doctor and Mrs. Willcoxon await the arrival of the guests.

health maintenance organizations and national health insurance. Mr. Cooper explained state medical legislation and medical political action.

Doctor Bowles has served as President of Clay County Medical Association and has been Chairman of the MSMA Commission on Public Affairs for the past two years. He has been in private practice in Liberty since 1958.

The outstanding program was arranged by Dr. Robert L. Willcoxon, Program Chairman. Incoming President F. Wendell Pense presided at the dinner meeting.

New Members

John C. Angelillo, M.D., 4 Waterways Ct., Florissant, has become a member of St. Louis Medical Society. Dr. Angelillo is a native of Paterson, N. J., received his preliminary education at St. Louis University and his M.D. degree at Duke University in 1970. He specializes in oral and maxillofacial surgery.

Charles W. Barbee, M.D., 113 W. Broadway, Columbia, has become a member of Boone County Medical Society. Dr. Barbee is a native of Hugo, Okla., received his preliminary education at the University of Oklahoma and his M.D. degree at the University of Oklahoma in 1965. He specializes in general surgery.

George Bohigian, M.D., 211 N. Meramec, St. Louis, has become a member of St. Louis Medical Society. Dr. Bohigian is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at St. Louis University in 1965. He specializes in ophthalmology.

Frederick M. Brandon, M.D., 2008 Sergeant, Joplin, has become a member of Jasper County Medical Society. Dr. Brandon is a native of Popular Bluff, received his preliminary education at Williams College and his M.D. degree at the University of Arkansas in 1963. He specializes in radiology.

John C. Budge, M.D., Rt. 2, Box 450, Chesterfield, has become a member of St. Louis County Medical Society. Dr. Budge is a native of St. Louis, received his preliminary education at Utah State University and his M.D. degree at St. Louis University in 1966. He specializes in radiology.

Eliot Casey, M.D., 3220 Parker Rd., Florissant, has become a member of St. Louis Medical Society. Dr. Casey is a native of New Bedford, Mass., received his preliminary education at Stonehill College and his M.D. degree at St. Louis University in 1967. He specializes in pediatrics.

Manuel Castasus, M.D., 600 N. Union, St. Louis, has become a member of St. Louis Medical Society. Dr. Castasus is a native of the Philippines and received his M.D. degree at the University of Santo Tomas in 1959. He specializes in general surgery.

Sostenes G. Codilla, M.D., 1755 S. Grand Blvd., St. Louis, has become a member of St. Louis County Medical Society. Dr. Codilla is a native of Cebu, Philippines, received his preliminary education at the University of San Carlos and his M.D. degree at the University of Santo Tomas in 1964. He specializes in general surgery.

Nicholas J. Colosi, M.D., 1325 S. Grand Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Colosi is a native of Philadelphia, Pa., received his preliminary education at LaSalle College and his M.D. degree at St. Louis University in 1968. He specializes in ophthalmology.

John Dawley, M.D., 1325 S. Grand Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Dawley is a native of Rapid City, S. D., received his preliminary education at the University of Iowa and his M.D. degree at the University of Chicago in 1963. He specializes in neurosurgery.

Baldev K. Devgan, M.D., 1325 S. Grand Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Devgan is a native of Lahore, Pakistan, received his preliminary education at A.S.V.J. Higher St. School and his M.D. degree at Glancy Medical College in 1961. He specializes in otolaryngology.

Carl F. Ehrlich, M.D., 777 S. New Ballas Rd., St. Louis, has become a member of St. Louis County Medical Society. Dr. Ehrlich is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at the University of Missouri in 1965. He specializes in otolaryngology.

Daniel M. Fraser, M.D., 1035 Bellevue, St. Louis, has become a member of St. Louis Medical Society. Dr. Fraser is a native of St. Louis, received his preliminary education at Georgetown University and his M.D. degree at St. Louis University in 1964. He specializes in general and thoracic surgery.

Jerry C. Freeman, M.D., 5601 Antioch Rd., Kansas City, has become a member of Clay County Medical Society. Dr. Freeman is a native of Detroit, Mich., received his preliminary education at Rollins College and his M.D. degree at the University of Kansas in 1965. He specializes in otorhinolaryngology.

Theodore George, M.D., 1500 N. Kansas, Marceline, has become a member of Grand River Medical Society. Dr. George is a native of Thessaloniki, Greece, received his preliminary education at the University of Georgia and his M.D. degree at the Medical College of Virginia in 1965. He specializes in general surgery.

Karl H. Hanson, Jr., M.D., 4320 Wornall Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Hanson is a native of Philadelphia, Pa., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1958. He specializes in internal medicine (hematology).

Olawale O. Idewu, M.D., 1325 S. Grand, St. Louis, has become a member of St. Louis Medical Society. Dr. Idewu is a native of Abeokuta, Nigeria, received his preliminary education at Blackburn College and his M.D. degree at Freiburg University in 1966. He specializes in otolaryngology.

Chang H. Kang, M.D., 105 Easton Ave., DeSoto, has become a member of Jefferson County Medical Society. Dr. Kang received his M.D. degree at Nagasaki University in 1944. He is in general practice.

Andrew B. Kaufman, M.D., 6700 Troost, Kansas City, has become a member of Jackson County Medical Society. Dr. Kaufman is a native of Youngstown, Ohio, received his preliminary education at Tufts University and his M.D. degree at Case-Western Reserve University in 1965. He specializes in neurosurgery.

Altaf Ali Khan, M.D., V.A. Hospital, St. Louis, has become a member of St. Louis County Medical Society. Dr. Khan is a native of Bangla Desh, received his preliminary education at Rajshahi Government College and his M.D. degree at Dacca Medical College in 1959. He specializes in internal medicine (gastroenterology).

Nit Kunawongsa, M.D., 1515 Lafayette, St. Louis, has become a member of St. Louis Medical Society. Dr. Kunawongsa is a native of Thailand, received his preliminary education at the University of Medicine, Thailand and his M.D. degree at Chulalongkorn Hospital Medical School in 1967. He specializes in pediatrics.

John C. Leonidas, M.D., 24th & Gillham Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Leonidas is a native of Athens, Greece, received his preliminary education at the University of Athens and his M.D. degree at the University of Athens in 1955. He specializes in radiology.

Keith A. LaFerriere, M.D., 5535 Delmar, St. Louis, has become a member of St. Louis Medical Society. Dr. LaFerriere is a native of Bridgeport, Conn., received his preliminary education at the University of Michigan and his M.D. degree at the University of Michigan in 1971. He specializes in otolaryngology.

James Lincoln, M.D., Highway 47 East, Troy, has become a member of St. Charles-Lincoln County Medical Society. Dr. Lincoln is a native of Newark, N. J., received his preliminary education at McGill University and his M.D. degree at McGill University in 1971. He is in general practice.

Herbert L. McDonald, M.D., 6700 Troost, Kansas City, has become a member of Jackson County Medical Society. Dr. McDonald is a native of Granite City, Ill., received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1959. He specializes in thoracic surgery.

"It's a get well card from all the nurses on the floor."

J. Scott Morrison, M.D., 424 Nichols Rd., Kansas City, has become a member of Jackson County Medical Society. Dr. Morrison is a native of Prague, Okla., received his preliminary education at the University of Oklahoma and his M.D. degree at the University of Oklahoma in 1962. He specializes in psychiatry.

James D. Morrissey, M.D., 4255 Pacific Ave., Stockton, Calif., has become a member of St. Louis Medical Society. Dr. Morrissey is a native of Jackson Heights, N. Y., received his preliminary education at New York State College and his M.D. degree at the State University of New York in 1964. He specializes in cardiothoracic surgery.

F. Del Muro, M.D., 5601 N. Antioch Rd., Kansas City, has become a member of Clay County Medical Society. Dr. Muro is a native of Mexico, received his preliminary education at the Institute of Sciences and his M.D. degree from the University of Guadalajara in 1950. He is in family practice.

Michael G. Murphy, M.D., 1325 S. Grand Blvd., St. Louis, has become a member of St. Louis Medical Society. Dr. Murphy is a native of Detroit, Mich., received his preliminary education at Xavier University and his M.D. degree at St. Louis University in 1964. He specializes in neurosurgery.

Robert L. Price, M.D., 34 N. Brentwood Blvd., Clayton, has become a member of St. Louis County Medical Society. Dr. Price is a native of Norfolk, Va., received his preliminary education at the College of William and Mary and his M.D. degree at the University of Virginia in 1946. He specializes in public health administration.

Ira J. Pryor, M.D., 2604 Picher, Joplin, has become a member of Jasper County Medical Society. Dr. Pryor is a native of Olustee, Okla., received his preliminary education at Oklahoma University and his M.D. degree at Oklahoma University in 1968. He specializes in anesthesiology.

Lester T. Reese, M.D., 100 N. Euclid, St. Louis, has become a member of St. Louis Medical Society. Dr. Reese is a native of Birmingham, Ala., received his preliminary education at Tulane University and his M.D. degree at Tulane University in 1966. He specializes in dermatology.

Randall Rosenthal, M.D., 8420 Delmar, St. Louis, has become a member of St. Louis County Medical Society. Dr. Rosenthal is a native of St. Louis, received his preliminary education at Purdue University and his M.D. degree at Washington University in 1967. He specializes in psychiatry.

David L. Ryan, M.D., 600 E. 9th St., Trenton, has become a member of Grand River Medical Society. Dr. Ryan is a native of Trenton, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1969. He is in family practice.

Greg G. Schoofs, M.D., 2928 Main, Kansas City, has become a member of Jackson County Medical Society. Dr. Schoofs is a native of Minneapolis, Minn., received his preliminary education at Northwestern University and his M.D. degree at Northwestern University in 1965. He specializes in ophthalmology.

York Eugene Silliman, M.D., Upsher Laboratories, Joplin, has become a member of Jasper County Medical Society. Dr. Silliman is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at the University of Missouri in 1964. He specializes in pathology.

Marvin A. Singleton, M.D., 114 W. 32nd, Joplin, has become a member of Jasper County Medical Society. Dr. Singleton is a native of Baytown, Tex., received his preliminary education at the University of the South and his M.D. degree at the University of Tennessee in 1966. He specializes in ENT and maxillofacial surgery.

Robert J. Stanley, M.D., 510 S. Kingshighway, St. Louis, has become a member of St. Louis Medical Society. Dr. Stanley is a native of Elizabeth, N. J., received his preliminary education at St. Peter's College and his M.D. degree at St. Louis University in 1963. He specializes in general surgery.

Hiralal Tekwani, M.D., 3555 Sunset Office Dr., St. Louis, has become a member of St. Louis Medical Society. Dr. Tekwani is a native of Pakistan, received his preliminary education at D. T. Government Science College and his M.D. degree at Dow Medical College in 1967. He specializes in ophthalmology.

Hermanito R. Trinidad, M.D., 106 N. Mill, Festus, has become a member of Jefferson

County Medical Society. Dr. Trinidad is a native of the Philippines, received his preliminary education at the University of Santo Tomas and his M.D. degree at the University of Santo Tomas in 1963. He specializes in general surgery.

Pio M. Vilar, Jr., M.D., 12083 Gist Park Dr., Bridgeton, has become a member of St. Louis County Medical Society. Dr. Vilar is a native of the Philippines, received his preliminary education at the University of Santo Tomas and his M.D. degree at the University of Santo Tomas in 1962. He specializes in general surgery.

R. C. Wray, Jr., M.D., 4960 Audubon, St. Louis, has become a member of St. Louis Medical Society. Dr. Wray is a native of Fayetteville, Ark., received his preliminary education at the University of Arkansas and his M.D. degree at Washington University in 1963. He specializes in plastic surgery.

Jin Soo Yoon, M.D., 103 11th, Chillicothe, has become a member of Grand River Medical Society. Dr. Yoon is a native of Seoul, Korea, received his preliminary education at Seoul National University and his M.D. degree at Seoul National University in 1963. He specializes in obstetrics and gynecology.

In Memoriam

O'Brien, James A., M.D., Joplin, a graduate of St. Louis University, 1928; member Jasper County Medical Society; age 68; died Sept. 17, 1972.

Owens, Graham J., M.D., Kansas City, a graduate of the University of Pennsylvania, 1941; member Jackson County Medical Society; age 55; died Sept. 23, 1972.

Hoard, Joseph W., M.D., Webster Groves, a graduate of Meharry Medical College, 1952; member St. Louis County Medical Society; age 47; died Sept. 30, 1972.

Noah, Joseph W., M.D., St. Louis, a graduate of Washington University, 1941; member St. Louis Medical Society; age 55; died Sept. 30, 1972.

Kurth, Robert K., M.D., St. Louis, a graduate of St. Louis University, 1943; member St. Louis County Medical Society; age 54; died Oct. 16, 1972.

Wiese, Harry W., M.D., St. Louis, a graduate of Washington University, 1922; member St. Louis Medical Society; age 77; died Oct. 19, 1972.

Barden, Frank Wm., M.D., Creve Coeur, a graduate of St. Louis University, 1931; member St. Louis Medical Society; age 68; died Oct. 24, 1972.

IMPROVED ACCIDENT & HEALTH PROGRAMS

The Disability Income Policy sponsored by the Missouri State Medical Association since 1943 has now been made GUARANTEED RENEWABLE and income benefits are available up to $300.00 weekly to members under age 56 subject to acceptance by the Company.

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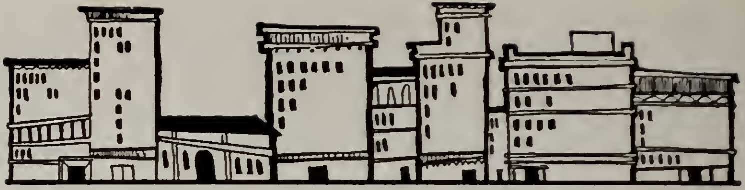

ST. LOUIS UNIVERSITY

Dr. Theodore Cooper, director of the National Heart and Lung Institute of the National Institutes of Health, was the recipient of the Alumni Merit Award in Medicine conferred by *Rev. Paul C. Reinert,* S.J., University president, during St. Louis University's observance of Founders Week. *Rev. Francis J. O'Reilly,* S.J., vice-president for University Relations, read the honor citation. The citation, written by *Dr. V. L. Willman,* said in part, "Theodore Cooper is an individual endowed with unusual intellectual capabilities which permit him to comprehend data, evaluate events and make unusually accurate judgments. He has what his colleagues around the world term a 'Scientific Mind.'" It concluded by saying, "St. Louis University is proud to be a part of the life of this truly pious man of great scientific accomplishment." Doctor Cooper earned an M.D. degree in 1954 and a Ph.D. degree in 1956 from the University.

Fifteen physicians were recipients of 25-year service awards during Founders Week. They are *Francis Bihss,* M.D., senior instructor in radiology; *Edward Cannon,* M.D., senior instructor in surgery (urology); *Thomas Coates,* M.D., assistant in surgery; *John Collins,* M.D., assistant clinical professor of gynecology and obstetrics; *Martin Davis,* M.D., senior instructor in internal medicine; *Edward Doisy, Jr.,* M.D., professor of biochemistry, associate professor of internal medicine; *Vencel Hollo,* M.D., assistant clinical professor of surgery; *E. Lawrence Keyer,* M.D., assistant clinical professor emeritus of surgery; *William Knight, Jr.,* M.D., associate professor of internal medicine; *Lawrence Mendonsa,* M.D., assistant clinical professor of gynecology and obstetrics; *Girard Munsch,* M.D., instructor in internal medicine; *Flavius Pernoud,* M.D., assistant clinical professor of ophthalmology; *Rudolph Ruhling,* M.D., assistant in internal medicine; *Robert Ryan,* M.D., clinical professor of otolaryngology; *Herbert Sweet,* M.D., clinical professor of internal medicine.

(*Left to right*) Rev Francis J. O'Reilly, S.J., vice-president for University Relations; Dr. Theodore Cooper, recipient of alumni merit award in medicine; and Rev. Paul C. Reinert, S.J., University president.

Dr. Edward M. Wittgen, Jr., assistant clinical professor of orthopedic surgery, has been elected president of the St. Louis University Hospitals' medical and dental staff for a one-year term. As president he will call and preside over all general meetings of the group. He succeeds retiring president *Dr. Donald R. Judd,* associate clinical professor of surgery at the School of Medicine.

Others elected were vice president, *Dr. Edward Eyerman, Jr.,* assistant clinical professor of neurology; and secretary-treasurer, *Dr. Dermott Smith,* associate professor of psychiatry.

A $79,462 grant has been awarded to the St. Louis University School of Medicine from the Robert Wood Johnson Foundation under the Foundation's nationwide student aid program. The program was designed in response to the need for financial assistance to future physicians from rural areas and minority groups. *Dr. Richard T. Dames,* assistant dean for the internship and residency program, said, "The money can be used either for grants-in-aid or can be given to the students as a long-term loan. However, because of the tremendous expense of a private medical education, we intend to make as much of it available as possible as grants-in-aid rather than long-term loans."

UNIVERSITY OF MISSOURI-COLUMBIA

Several hundred graduates of the University of Missouri's School of Medicine returned to their alma mater on November 17-18 for a Centennial observance of the founding of the medical school on the Columbia campus.

The event coincided with the annual "M.D. Day" scientific program for Missouri physicians. This year's speakers included six of the medical school's most prominent graduates, as follows:

Dr. Frederick C. Robbins, class of 1938, Nobel Prize winner in medicine and physiology and now dean of the School of Medicine at Case Western Reserve University, Cleveland. He was born in Alabama, but moved to Columbia at an early age.

Dr. James Eugene Lewis, Jr., class of 1940, director of the Birth Defect Center and chief of surgery at Cardinal Glennon Hospital for Children, St. Louis. He is from Mountain Grove.

Dr. Eugene B. Brody, class of 1943, chairman of psychiatry and director of the Institute of Psychiatry and Human Behavior at the University of Maryland, Baltimore. Doctor Brody is a native of Columbia.

Dr. Robert M. Heyssel, class of 1951, professor of medicine at Johns Hopkins School of Medicine and executive vice-president and director of Johns Hopkins Hospital, Baltimore. He is a native of Jamestown.

Dr. William J. Wilson, class of 1958, chairman of the Department of Radiology at the University of Nebraska, Omaha. He is a native of St. Joseph.

Dr. George R. Gay, class of 1961, director of Haight-Ashbury Free Medical Clinic's drug detoxification, rehabilitation and aftercare project, San Francisco. He is a native of St. Louis and grew up in Ironton.

Medical education was first offered by the University of Missouri in 1841 when the Curators signed an affiliation agreement with Kemper College in St. Louis for the establishment of a medical school headed by *Dr. Joseph N. McDowell.* It was the first medical school located in the Louisiana Purchase Territory.

The Missouri medical school continued in St. Louis until 1856 and then was inactive until the Board of Curators established the present school on the Columbia campus in 1872.

The first medical students arrived in Columbia in February, 1873, but for most of its first century, this was only a two-year school emphasizing studies in the basic medical sciences. Students then transferred to other four-year schools to complete their clinical or hospital training.

With the opening of the University Medical Center (hospital and clinics) in 1956, a four-year medical school program was assured. Medical education and patient care moved into a new phase.

Five students were in the first graduating class of the University of Missouri School of Medicine in 1874. Today, there are 110 medical students in the first-year class and 100 in each of the three advanced classes.

When former students returned to Columbia on November 17-18, several classes held reunions, including the members of the class of 1922, graduates of 50 years ago.

The scientific program on Friday, November 17, was followed by a dinner-dance for alumni, other physicians, medical students and guests.

WASHINGTON UNIVERSITY

A memorial service for *Carl V. Moore,* M.D., was held October 29 in Washington University's Graham Chapel.

Doctor Moore, who was Busch Professor and head of the Department of Medicine at the School of Medicine and physician-in-chief at Barnes Hospital, died on August 13 while vacationing at his summer home near Manistee, Mich.

Speakers at the service were *David P. Barr,* M.D., who was Busch Professor of Medicine from 1924 to 1941; *Thomas H. Eliot,* president of the Salzburg Seminar in American Studies and former Washington University chancellor; *James S. McDonnell,* chairman of the board of McDonnell Douglas Corporation and former member of the Washington University board of trustees; and *Sol Sherry,* M.D., professor and head of the Department of Medicine at Temple University School of Medicine and former Washington University professor of medicine.

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Council Reports

(Continued from page 917)

ers of PTA organizations and they will need active support and participation of physicians in every area in this state. The Missouri Board of Health has endorsed this program.

Dr. Domke then indicated that the MSMA, at its Kansas City meeting, expressed itself by resolution as being interested in the matter of having medical expertise contributed to environmental health matters. The Board of Health also has expressed itself in the same way. He stated that a joint Senate House committee is reviewing what should be done by legislation to put into effect the recently passed constitutional amendments and welcomes any suggestions as to what should be done in regard to environmental concerns.

Presently, Comprehensive Health Planning is in the Department of Community Affairs which is directly under the Governor's Office. This is true in about half of the states. In the other states, CHP is associated with the Health Department. He indicated that he was not saying that it should be transferred to the State Health Department. It is true, however, that the administrative unit in the Governor's Office to which CHP was assigned appears to have been disbanded by the constitutional amendment.

The Little Hoover Commission has recommended that licensing boards be placed under what was originally to be the Department of Agriculture and Community Affairs, but now is to be called the Department of Community Affairs, Regulation and Licensing. It seems to imply that there would be some common staff that would serve these different boards. The Board of Health invited the attention of the various health manpower licensing boards to this recommendation and are calling these things to your attention so that recommendations can be made to this joint Senate-House Committee if you desire.

As one important component to emergency medical services, the Board of Health has given high priority to legislation for ambulance regulation. Dr. Domke stated that we have seen the development of improved ambulance service in recent years, although some of the outstate areas are in trouble. Hopefully, more support will be received for the bill during the next legislative session.

The Division of Health is undertaking a program audit for funds distributed by the Health Department for the support of local health units. Some $2 million is distributed each year to the local health units. An auditing program is being undertaken to determine and evaluate what this money is doing. What this amounts to is an expansion and improvement of our audit procedures.

Dr. Domke said that he stated at the last Council Meeting that he hoped to have information regarding physician and health manpower in Missouri at this time. He passed around a copy of the printout containing this information, numbers, where they are located, etc. He indicated that he would not review the entire table. They do hope to publish this and, possibly, in the MSMA Journal.

REPORT OF COMMISSION ON CONTINUING EDUCATION AND HEALTH MANPOWER

Dr. Ladyman, Chairman of the Commission, gave the following report on various activities of the Commission on Continuing Education and Health Manpower and several of its ad hoc committees.

He presented the Council with a resolution on nursing duties, indicating that it had been accepted by the Nursing Association, the Ad Hoc Committee on Health Manpower and the Hospital Association and that he was seeking Council approval.

Dr. Hansbrough called attention to the second page of the resolution. At the top of the page, it indicates "Registered" professional nurses. He stated that since this does include licensed practical nurses, he felt the word "registered" should be deleted. Dr. Ladyman indicated that there was no objection to this.

Dr. Ladyman then gave a brief progress report on the failure rate of foreign physicians taking the state boards. Several AMA tables were distributed to the Council regarding how Missouri ranks with other states in this regard. These figures were for the year 1971 and showed a failure rate in Missouri of 18.8%. For foreign graduates, this failure rate was 20.9%. He stated that in comparison to other states who examined approximately the same number, we must be a little easier than the rest. Forty-two states show no reciprocity for foreign graduates. Apparently, most of this is on an individual basis.

Dr. Mayer stated that it was his understanding that in the case of foreign graduates, they will accept them for reciprocity if they are boarded or board qualified or have graduated from an AMA approved program.

Dr. Ladyman spoke of the legal aspects of people doing emergency care in hospitals. The only information available right now are the 1966 guidelines set by the AMA. As of Jan. 1, 1973, they will publish new guidelines as to the legal implications of these people performing this task. He indicated that he would like to delay this until that time.

He stated that the turnout for the Continuing Medical Education workshop held in June at Columbia was not the best, but it was a fine educational program. They had several speakers who have been in the business for a long time. He stated that he felt the Committee really learned from it. This is in Phase I of the Program trying to identify needs and methods of administration. They are hoping to use the Health Care Foundation, possibly through its peer review mechanism input, to try to identify the needs in the different areas of the state. This was a worthwhile meeting.

Mr. Fox then reported for the Ad Hoc Committee on the 115th Annual Session. He stated that 23 separate sessions are planned. Both the Heart Association and the Cancer Society have agreed to sponsor sessions again this year. There will be two general sessions and the rest of the sessions will be sponsored by the various specialty groups in the state.

On motion of Dr. Matthews, duly seconded, the Council voted to commend Dr. Kinsella and the members of his committee for the splendid program they presented last year and to give full support for the forthcoming session. Motion carried.

Dr. Miller asked why OB-GYN was not sponsoring a session during the meeting. Mr. Fox indicated that letters were sent to all specialties and apparently no reply was received from them.

Mr. Fox reported on a meeting sponsored by the Missouri Extension Division on Rural Health which he attended. We were invited as a guest. Practically every organization was represented—Industrial Commission, Small Business Administration, etc. Almost the entire meeting was taken up with discussion of the problems of rural health and the federal bills now pending.

On motion, duly seconded, the report of the Commission on Continuing Education and Health Manpower was accepted. Motion carried.

REPORT OF AMA DELEGATES

Dr. Neilson reported on the AMA meeting held in San Francisco in June. At the meeting, the concept of a physicians' union was vigorously attacked, representation for medical students was approved and the results of the first AMA membership poll were presented. The House of Delegates acted on 59 reports and 130 resolutions.

In his inaugural address, Dr. Hoffman, AMA President, made a plea for unity, but attacked the cry for unionism in the medical profession. It is estimated that 3,500 physicians now belong to unions or guilds. *Medical Economics* polled physicians and found that 60% of them believed that the profession should organize.

On a related issue, Dr. Hoffman said that peer review was initiated by the profession and it would be tragic and a derelection of duty if we were to surrender that initiative to others. He indicated that "*Peer review is an idea whose time has come.*"

The House received the results of the first membership opinion poll. Of the 94,000 respondents, 73% felt that the AMA should continue to try to keep the basic principles of private practice in any federal health program and 55% preferred the AMA's Medicredit plan of national health insurance to any other.

AMA programs that the members felt were not receiving enough emphasis were communications to the public, practice-management problems and socio-economic issues.

The House approved a policy opposing employment of physicians' assistants in hospitals.

Guidelines were adopted for compensating physicians for the services of physicians' assistants. A Missouri resolution encouraging legislation at the state level which would place control of the physicians' assistant and physicians utilizing such services under state boards of physician licensing was referred to the Commission on Health Manpower for implementation.

The House established a Liaison Committee on Graduate Medical Education and a Coordinating Council on Medical Education.

The House adopted the following statement on marihuana: "This AMA House of Delegates does not condone the production, sale or use of marihuana. It does, however, recommend that the personal possesion of insignificant amounts be considered at most a misdemeanor, with commensurate penalties applied."

The Delegates adopted a strong resolution condemning attempts to fix physicians' fees by third-party payors in response to actions by Aetna Life and Casualty Insurance Company.

Bylaws changes gave medical students membership in the AMA and representation in the House of Delegates.

The House approved acceptance of a new contract with the Fireman's Fund Insurance Company to continue the AMA Group Disability Insurance Program.

The two resolutions introduced by the Missouri delegation at the direction of the MSMA House of Delegates were adopted in amended form. One resolution regarded physicians' assistants and the second concerned the Propriety of Professional Public Communications.

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physicians' assistants is being undertaken by the AMA and the National Board of Medical Examiners. The importance of developing an examination for such a new and evolving occupation as the physicians' assistant was emphasized. The joint proposal recommends creation by the AMA of a national advisory body on certification on physicians' assistants, to counsel the AMA and the National Board regarding general policy decisions about the certification program.

A tribute resolution was introduced into the House by the Missouri Delegation. Copies of the resolution will be sent to Dr. Wendell Scott's family.

Dr. Washburn sent a fine report to the Council, Officers, AMA Delegates and Alternates regarding a summary of the discussions before the AMA Council on Long Range Planning and Development at the AMA session in June regarding proposed changes in the AMA organizational structure and activities.

Dr. Neilson indicated that much hard work and effort paid off as Dr. Vernon Wilson was reelected to the Council on Medical Education and Dr. Hector W. Benoit was elected to the Council on Medical Service for a one-year term. Dr. Neilson reported that both he and Dr. Benoit chaired reference committees.

Missouri Congressman Durward Hall was properly recognized for his service to government, his constituency and the entire medical profession.

Dr. Neilson thanked the officers and staff for their efforts at the AMA meeting and commended the Delegates and Alternates for a job well done. He stated that the delegation has been very effective this year and asked that the Councilors reassess AMA and bring positive, constructive thinking to the delegation so that Missouri may continue to be among the leaders of the 50 constituent delegations.

Dr. Hansbrough brought up the subject of the Kennedy Bill (S-3327) and indicated that the press carried a story indicating that the AMA had declined invitations to testify on the bill before the Senate Health Subcommittee. He said that he was aware that possibly we had testified earlier, but felt that this was Mr. Kennedy's way of using the AMA. Dr. Hansbrough indicated that anytime a legislator requests the AMA to testify, we should be there to do it. He stated that he felt a letter should be written to the AMA indicating our concern of this matter.

Mr. Smith indicated that he was quite sure the AMA did testify before the committee in its first round.

Dr. Matthews said that possibly there were some extenuating circumstances for their not appearing. There are reasons at times for not testifying.

On motion, duly seconded, the AMA Delegates' report was accepted with commendation. Motion carried.

REPORT OF AMA

Mr. Mortenson indicated that much time was spent on the Kennedy HMO Bill, Senator Kennedy wanted quick Senate action. AMA and state societies have been seeking to delay the bill and this has made Senator Kennedy unhappy. Contrary to the Senator's statement, the AMA's views were presented to the subcommittee last fall. It submitted a written statement reiterating its position when scheduling difficulties ruled out a personal appearance.

Mr. Mortenson stated that they have had a good response to the AMA excess major medical insurance program. This program can be coordinated with any program which the member now has and the cost is very low.

He also stated that AMA negotiations with Aetna have been successful. We reached no definite deal, but we have reached an agreement.

Mr. Mortenson reported that his three priorities for the AMA are (1) politics, (2) keeping state societies informed and ourselves informed on legislation and (3) AMA membership. He stated that the AMA has been concerned about complaints regarding the lack of response, etc. and indicated that one individual is now in charge of taking care of these complaints. He is David Weihaupt. He further stated that they would be happy to furnish speakers occasionally for county society meetings.

LETTERS TO AMA

Dr. Hansbrough read a proposed letter to the AMA regarding the AMA's failure to appear at a Senator Kennedy Subcommittee meeting as had been requested by the subcommittee. It was agreed that the letter be sent to the AMA.

OPHTHALMOLOGISTS

A proposed letter to Dr. Schertz was read. This letter concerned the ophthalmologists proposing legislation for physicians' assistants. A motion was made that the proposed letter be sent to Dr. Schertz. Motion was seconded and carried.

UROLOGISTS

A proposed letter that was to be sent to Dr. Mebust, President of the Kansas City Urological Society, was read. This letter concerned the Kansas City Urological Society's request that they be designated to represent the urologists of Western Missouri at the state level.

Motion was made that this letter be sent to Dr. Mebust. Motion was seconded and carried.

Another letter was read that was to be sent to the President of the Missouri Federation of Urologists informing him of the decision reached regarding the request of the Kansas City Urological Society.

Dr. Stricker moved that this letter be sent to the President of the Missouri Federation of Urologists. Motion was seconded and carried.

ACUPUNCTURE

Dr. Chandler moved that the following resolution regarding acupuncture be adopted and sent to the State Board of Registration for the Healing Arts.

> "Whereas, The practice of the ancient Chinese art of acupuncture and the Japanese art of shiatsu are attracting renewed attention in both medical and nonmedical circles, and
>
> Whereas, Various scientific agencies and institutions are currently studying and investigating all aspects of acupuncture and shiatsu, including its possible utilization in the prevention and/or treatment of human disease, illness or other physical or mental abnormalities, and
>
> Whereas, The prevention and treatment of human disease, illness or other physical or mental abnormalities clearly constitute the practice of medicine, therefore, be it
>
> *Resolved*, That the Missouri State Medical Association urge the Missouri State Board of Registration for the Healing Arts to utilize such legal and statutory powers as may be available to declare that the principles apparently involved in the practice of acupuncture and shiatsu are medical principles and that acupuncture and shiatsu, if found to be scientifically valid and medically beneficial, would fall under the definition of the practice of medicine."

Motion was seconded and carried. It also was suggested that a news release be sent out regarding this matter.

REPORT OF THE WOMAN'S AUXILIARY

Mrs. Jones introduced Mrs. Charles Willman, St. Joseph, President-Elect of the Woman's Auxiliary. Mrs.

Jones indicated that Missouri will be host from October 18-20 to the North Central Regional Workshop.

Mrs. Jones stated that the Fall Conference of the Woman's Auxiliary would be held on October 24-25 at the Ramada Inn in Columbia. The program on the afternoon of the 24th will consist of a panel discussion on legislation and politics. That evening, the Auxiliary will join with the Fifth Councilor District meeting in having a benefit dinner for the Missouri State Medical Foundation. Speakers for the dinner will be Dr. Walter Gunn and Mr. Roy Pfautch, President of Civic Service, Inc., who will speak on "Practical Politics." The second day of the Conference will be a health education day. Mrs. Jones stated that she would like to thank Drs. William Bradshaw, Paul Young and Gerald Miller for their time and assistance in planning the Health Education Day. She also stated that 70 state organizations had been invited to join them.

Mrs. Jones stated that she hoped that a small room in the MSMA's new building could be set aside for the Auxiliary to store their archives.

Mrs. Jones stated that in keeping with the AMA's request that the women get involved in politics, the Auxiliary state legislation chairman had arranged for Mr. Royal O. Cooper to speak before the Jackson and Jasper County Auxiliaries and she hoped that he also could visit others.

Mrs. Jones indicated that Missouri was low in the list for AMA-ERF contributions. She indicated that there was a remedy for this. She stated that if possible, the Auxiliary would like to be given credit for all contributions in the state. Mr. McIntyre stated that he had checked into this matter with the AMA and that he was in full accord with this. He also indicated that everyone who gave a contribution would receive credit for it and that the Woman's Auxiliary would get credit for the total amount of AMA-ERF contributed throughout the state Mr. McIntyre stated that this would require official action by the Council.

Dr. Gunn moved that this policy for accounting for AMA-ERF funds be adopted. Motion was seconded and carried.

Mrs. Jones stated that she hoped that everyone is reading the Auxiliary page in MISSOURI MEDICINE. She also indicated that she and Mrs. Willman appreciated being invited to the meeting.

Dr. Miller reported that the Ad Hoc Family Planning Committee would present a short report at this time and present a more complete report at a later date. The Committee's report consists of the following four recommendations:

1. We recommend that due to the divergence in nature of the clinics, local medical societies and/or local physicians be urged to take a more active role in the establishment and operation of family planning clinics.
2. We recommend frequent appraisal of each clinic's programs as to its continued effectiveness and in its respect for medical ethics.
3. We recommend frequent appraisal of the clinic's programs in such areas as number of patients reached and costs-per-patient.
4. And, we recommend frequent appraisal of the clinics as to the extent they are invading the private practice of medicine.

Dr. Miller recommended that Drs. Gulick, Chandler and Cope act as Council representatives advisory to the Health Care Foundation's Constitution and Bylaws Com-

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mittee. This action had been requested on the previous day.

Dr. Miller next reported on his experience as a member of the Missouri University President's Advisory Council for Health Related Professions. He indicated that he had been appointed to this committee two or three months before the completion of his term as President. The first meeting of this committee was held in June and was well attended by representatives from the various health professions. Dr. Miller indicated that he had asked that Dr. Gunn, as President of MSMA, be invited to attend these meetings, but that President Ratchford had asked that he attend the meeting in June. Dr. Miller indicated that a delightful program had been presented and that the first meeting had been extremely well received by all those present. Dr. Miller stated that certainly MSMA needs to be represented and thought that Dr. Gunn needs the exposure and full privilege to attend. President Ratchford felt that some continuity was needed so far as effectiveness is concerned.

Dr. Gunn then requested that Dr. Miller continue in this capacity as a member of this Advisory Council.

Dr. Hansbrough moved that this report be accepted. Motion was seconded and carried.

MISSOURI HEART ASSOCIATION

Dr. Hugh Stephenson, Chairman of the Cardiopulmonary Resuscitation Committee of the Missouri Heart Association, indicated that the Missouri Heart Association is submitting a grant application proposal to the Missouri Regional Medical Program to develop an intensive statewide training program in cardiopulmonary resuscitation. This program is not only designed for hospital personnel, but for all other emergency oriented people.

Dr. Stephenson said that the Heart Association has had a cardiopulmonary committee for some years. Several years ago, the committee sent out a survey to hospitals asking what is being done as far as record keeping is concerned on resuscitation attempts. He indicated that 70 hospitals did not as yet have any effective record keeping system on resuscitation attempts. Dr. Stephenson stated that he felt it was the obligation of his committee and medicine at large to see that appropriate applications of cardiopulmonary resuscitation were made. He stated that, perhaps, through the grant we can make a contribution. He indicated that we need to know just what is being accomplished and he doesn't believe anyone can say that the programs have achieved a specific degree of success.

Dr. Stephenson stated that this committee would like to have the encouragement and the backing of MSMA.

Dr. Hetlage moved that we endorse and support this project. Motion was seconded by Dr. Miller and was carried.

CENTRAL METHODIST COLLEGE MANPOWER PROJECT

Dr. John Smart of Central Methodist College, Fayette, presented a community-based educational manpower project in rural Mid-Missouri that the college wants to implement.

Dr. Smart stated that he had researched the manpower problem in rural Missouri and that one main area of concern is the shortage and maldistribution of allied health manpower. He indicated that funding would come through HEW and Missouri Regional Medical Program.

Dr. Smart stated that this project is conceived as a quasi-experiment in the more effective organization and cooperation of community-based institutions of higher education and of professional health service. The project will demonstrate ways of coordinating and cooperating procedures, facilities, faculties and professional personnel among these institutions which share concerns and responsibilities for the more effective recruitment and preparation of allied health professionals to meet local needs and for facilitating professional and sub-professional aspirations at the local level. The community-based comprehensive educational programs of the project will meet more effectively the demonstrated health manpower needs of the ten and one-half county Mid-Missouri rural area that will participate in the project. All the educational institutions in this project plan to develop and establish programs which will (1) expand health careers education opportunities for people of the area; (2) articulate and formulate effective linkages with all established training programs in the area (both sub-professional and professional levels); (3) significantly increase the number of appropriately educated allied health professionals; and (4) provide for maximum vertical mobility between professions and sub-professions. Dr. Smart indicated that they had received endorsements from various health related organizations.

After hearing Dr. Smart's report, it was moved that the Council approve in principle the ideas which he presented. The detailed program will be submitted to our Commission on Continuing Education and Health Manpower for study and subsequent report. Motion was seconded and carried.

REPORTS OF DEANS OF THE MEDICAL SCHOOLS

Dr. M. Kenton King of Washington University Medical School reported that enrollment in Washington University had increased considerably. He indicated that within three years, there will be about 480 students in the school of medicine.

Dean Mayer of Missouri University reported that 110 new medical students had entered school in September and 104 of these were Missouri residents.

Dr. Mayer stated that he had just learned that Dr. George Ulett had resigned as Director of the Division of Mental Diseases and stated he would like to present the following suggestion that could be adopted as a resolution by the Council and be sent to Dr. Ulett:

> The MSMA Council, having recently been informed of the resignation of Dr. George Ulett as Director of the Division of Mental Diseases of the State of Missouri, wishes to express to Dr. Ulett the sincere appreciation of the Missouri State Medical Association for his efforts over the last decade in improving the mental health programs of the State of Missouri.

Dr. Miller moved that the above be adopted and sent to Dr. Ulett. Motion was seconded and carried.

Dr. Mayer stated that in keeping with his approach and that of Dr. Wilson of keeping the Council informed on any issues in which they are involved, he would like to present an issue and seek the approval or opinion of the Council before implementing it. This issue relates to providing joint training for individuals in child psychiatry and working with the Kirksville College of Osteopathy. This program would be run conjointly in the facilities of the medical school and the Warren Hearnes Child Development Center in Fulton. Dr. Mayer pointed out that the AMA and others have approved of osteopaths coming into AMA approved programs. No objections were raised.

Dean Mayer indicated that he had recommended to Chancellor Schooling that the policy of requiring referral of patients to the University Hospital by practicing physicians should be expanded to state as follows:

"Any person requesting medical care, special study or diagnosis may be admitted to the University Hospital. Admission may occur by direct request of a patient, by referral of a licensed physician or through such other means as deemed appropriate under such rules and regulations as may be adopted."

Dean Mayer further pointed out that no change in this policy had as yet been made in that he wanted to make sure that the Council of the Missouri State Medical Association had no objections to the change before it was implemented. No objections were raised by the Council.

Dean Noback stated that there were three things that he wished to speak to:

1. He indicated that the Kansas City Medical School had 72 new students in year one and 12 new students in year three.
2. Dr. Noback indicated that General Hospital in Kansas City would be replaced by a new facility.
3. He next spoke to the school's application for an area health education center in western Missouri under the program supported by NIH through the Bureau of Health Manpower Education. Dr. Noback stated that in the latter part of June, the deans of all M.D. and D.O. schools in the country received a letter from the Bureau of Health Manpower Education stating that funds would be available to develop health education centers. He indicated that these centers would be based in medical schools and a consortium of institutions in some geographic portion of a state. He stated that he had discussed this with area hospital and health institutions and a letter of intent was filed that they were interested in developing such a center. Their letter was viewed as one of those that was meritorious. He indicated that he had been in contact with people in Springfield, St. Joseph and Columbia and that there is a substantial interest on the part of physicians, hospitals, nursing schools and educational institutions in cooperating in developing such a center.

Dr. Noback stated that the intent of their proposal is to bring those in the western part of Missouri into closer communication and, over the years, they can plan realistically to improve our ability to support continuing education programs for all in the health manpower field. Dr. Noback stated that the response to the application is not yet known, but that it should be known by the end of this month. Dr. Noback indicated that a substantial number of dollars would be involved and the federal program calls for level funding for each of five years.

Dr. George Thoma of St. Louis University stated that their school had 153 new students this fall. He indicated that one-third of the members of the class are Missouri residents. He said that there are several disadvantaged students. He indicated that a bridging course had been held last summer to help prepare some of these disadvantaged students for medical school. The program covered matters of study habits and refresher courses.

Dr. Thoma indicated that with their expanding enrollment and limited clinical facilities in their own hospital, they were having to rapidly expand their affiliation program with private and tax supported hospitals.

REPORT OF COMMISSION ON MEDICAL ECONOMICS

Dr. Peterson, Chairman, stated that Mr. Proctor Carter and Mr. Ed Singleton of the Division of Welfare had attended the Commission meeting held on June 29. Mr. Carter had reported that nursing homes had recently been audited by federal auditors. The auditors observed

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118 patients in ten nursing homes and, in their opinion, 67% of these patients may not have needed to be in the nursing homes. Mr. Carter had requested reexaminations of the patients. Mr. Carter also reported that he hoped to return physicians' reimbursement for Medicaid services rendered to the June, 1970 schedule.

Dr. Peterson reported that a physician reimbursement problem under Medicare had been referred to his Commission. The problem occurred when a patient of a physicians' group complained to the SSA that the group had refused to furnish an itemized bill for approximately $45.00 that would enable him to receive reimbursement. Subsequently, the group did furnish an itemized bill that was adequate for the patient to receive payment.

The HEW intermediary manual provides that "a patient's statement or a Social Security Office report may indicate that an attempt was made to obtain an itemized bill from the physician, but the physician refused to furnish the bill until it is paid. The carrier should then contact the physician or, if necessary, the local medical society in an effort to resolve the problem. If appropriate, the carrier may suggest the beneficiary file a grievance with the Society."

Voluminous background material was presented to the Commission concerning the methods of reimbursements under Medicare and available options. It appears that the real question involved is, "Is it the right of the physician or is it the right of the patient to determine the method of reimbursement for services rendered under Medicare?"

After discussion, on motion, the Commission recommends that the selection of alternative methods of collecting charges from the Medicare patient is the responsibility of the treating physician and that the patient should not have the option of demanding direct payment to himself for a physician's services. Dr. Peterson indicated that the Commission felt the whole problem of third party payments needed to be studied and an ad hoc committee, chaired by Dr. Heeb, was formed to study this problem and report its recommendations at the next Commission meeting.

Dr. Peterson next reported on the setting up of an organization for negotiation of professional fees. He stated the committee had researched this and had decided to set this up as a department of economic affairs within the framework of MSMA. He indicated that they had received advice not to set up the organization in this manner. He said that the committee had made a change of direction and would now set up the organization outside of the official structure of MSMA with its own Constitution and Bylaws and operating rules.

Dr. Peterson stated that the Illinois State Medical Society had recently published a pamphlet entitled "Medicare Misconceptions" and offered it for sale to its members so that they could give them to their patients. It has been a tremendous success and the Illinois Society has granted permission for all state medical associations to reprint this pamphlet. Dr. Peterson indicated that the Commission felt that this pamphlet should be reprinted and offered for sale to MSMA members.

Dr. Cope stated that the negotiation for fees organization would be similar in construction to MMPAC and that in approving the report, we would be confronted in the future with such an organization.

Dr. Hetlage moved approval of the entire report. Motion was seconded by Dr. Martin and carried.

REPORT OF COMMISSION ON PUBLIC AFFAIRS

Dr. Bowles, Chairman of the Commission, reported that he had a good Commission again this year, and that several items had been considered at a recent commission meeting.

Dr. Bowles reported that one of the issues of prime importance discussed was that of emergency medical services. He reported that on August 28-29, the Governor's Advisory Council on CHP held a meeting on emergency medical services. The meeting was held to discuss the need for providing adequate emergency care in Missouri. As a result of the meeting, a good provisional report had been written. Dr. Bowles asked permission that Dr. Allen Klippel be asked to appear at the December Council meeting to go over this report. Dr. Bowles mentioned that Senate Bill #508, which provides for the standardization and high quality of emergency care vehicles and attendants, would be in the General Assembly next session and he would appreciate support for this bill.

Dr. Bowles indicated that there had been considerable discussion on VD education. He stated that he had attended a meeting on July 19, with Dr. Bob Taylor of the Department of Education; Mrs. Leroy Schulenberg, President of the State PTA; Mr. Ray Bly of the State Department of Health; and Mr. Swarens. As a result of this meeting, it was decided to embark upon a renewed effort toward stimulating VD education. A series of approximately 18 workshops are being planned over the state under the sponsorship and cooperation of the Department of Education and the Department of Health for the officers and leaders of state PTA organizations with MSMA providing physicians to handle discussion on medical and technical matters. An ad hoc committee consisting of Drs. Orgel, Hungate and Neilson was appointed to study the possibility of physicians speaking at these conferences. As a result of these conferences, it is anticipated that the information received by the PTA leaders would be brought back to local school authorities and that these groups would cooperate in instituting a unified type of VD education in schools.

The next item the commission discussed was the Public Affairs Conference. Dr. Bowles stated that despite the excellent programs, there had been a drop in attendance. The commission considered the possibility of dropping the conference. After discussion, it was decided to continue this project. The commission also indicated to the Councilors that possibly in some way, they could urge their county society officers to attend this conference. There also was a suggestion at the commission meeting of combining the Woman's Auxiliary meeting with the Conference.

Dr. Bowles reported on the Mini-Estes Conference that will be held on March 1-2, 1973. A similar conference was held last year and was quite successful. Dr. Bowles said that he attended a planning meeting for this conference on July 22. He indicated that he would like financial support for this conference, if needed. He stated that the theme for this year's conference would be "Public and Professional Accountability for Health Care Services."

Dr. Bowles reported that Resolution #33 had been referred to the Commission. This resolution was concerned with the creation of a Pediatric Coordination Council of Missouri. The Council would be composed of representatives from various organizations, including the MSMA. The Commission recommends support for this Council and also recommends that Dr. Donald Blim of Kansas City be appointed to represent the MSMA.

Dr. Bowles requested suggestions for members of his ad hoc committees. He stated that he had received suggestions from Jackson County.

Dr. Bowles stated that even though MSMA is not making headlines in its efforts against drug abuse, our help is being felt in the overall educational effort. He also indicated that despite the public clamor for action on drug abuse, alcoholism remains far and away the greater problem.

Dr. Bowles reported that the CHIP program was progressing and asked that Dr. Rikli be invited to the December meeting to give a progress report.

Dr. Bowles reported on a request for approval of a medical program from the Missouri Municipal League. After consideration, the commission decided that MSMA should serve in an advisory capacity and the MSMA staff should keep the Municipal League informed on health matters of mutual concern.

Dr. Bowles next spoke about mobile X-ray units. He indicated that the HEW, FDA, ACCP and the ACR had issued a joint statement recommending the banning of mobile X-ray units. The commission felt that they did not have enough information on this matter and would report on this at the December meeting.

Dr. Hetlage moved that the report be accepted with commendation. Motion was seconded and carried.

Motion was made to appoint Dr. Blim to the Pediatric Coordination Council and to give financial support to the 1973 Mini-Estes Conference. Motion was seconded and carried.

COMMUNICATIONS CLINIC

Dr. Stricker reported on the Communications Clinic held on August 28-29 in Chicago. Some of the clinic ideas, which could be considered by the MSMA, included a legislator's interview program, a News Media Code and a special venereal disease education program.

The legislator's interview program would be done by a news reporter with individual lawmakers on health-related bills which are under consideration. Television tapes of the interview would be sent to stations in that lawmaker's district. The cost would be about $175 a week during the legislative session. The News Media Code, developed jointly by physicians and media representatives, establishes certain guidelines in reporting health-related news. A special VD education program carried out by New York Medical Society offers an economical, but informative, pamphlet which students and teachers will read.

Dr. Matthews asked if it would be possible to make up a packet of these pamphlets passed out at the Communications Clinic and send them to the Presidents and Secretaries of County Medical Societies. He indicated that this would be a good way to disperse some of these ideas and a covering letter be sent with this packet. Dr. Matthews moved that a packet of these pamphlets be sent to the Presidents and Secretaries of each county society. Motion was seconded. During discussion, the matter of cost was brought up. Mr. Swarens pointed out that these pamphlets could be obtained from the AMA and that the only cost involved would be mailing costs. It was then suggested that these be sent only to the secretaries of each society.

The motion was amended to read as follows:

> Move that a packet of these pamphlets be sent to the Secretaries of each county society.

The motion was seconded and carried.

Mr. Swarens was requested to study the News Media Code and report back on it at the December meeting.

COMMITTEE ON PLANNING

Dr. Hetlage stated that Resolution #27, regarding Council Chairmanship, had come from his District and had been considered by the Planning Committee. It was felt that as it now stands, it could not possibly be implemented. Dr. Hetlage requested that this resolution be referred back to the Planning Committee for further consideration.

Dr. Gunn moved that this item be referred back to the Planning Committee for reconsideration and report before the Annual Meeting. Motion was seconded and carried.

The recommendation that the Constitution be changed so that the Immediate Past-President of the Association no longer be a member of the Council also was referred back to the Planning Committee for further consideration.

The next item considered by the Planning Committee was the possibility of obtaining medical students, after their first year of medical school, working as assistants in physicians' offices during the summer. Dr. Franklin stated that this was an excellent program and gives the students a chance to find out what medicine is about.

It was moved to send this recommendation to the Commission on Continuing Education and Health Manpower. Motion was seconded and carried.

The last item considered by the Committee was the possibility of relinquishing our tax exempt status under IRS regulations for nonprofit corporations. Dr. Cope stated that we ought to have our attorneys and accountants views on this matter.

Dr. Hansbrough moved that this matter be referred to the Long Range Planning Committee for further detailed study. Motion was seconded and carried.

MSMA SPONSORSHIP OF TOURS

Mr. Cooper reported that 134 physicians and their wives had signed up for the Caribbean Cruise and that the program had been approved for credit hours by the AAFP.

A committee composed of Drs. Martin, Hetlage and Chandler had been appointed to look at some suggested material for future tours. The committee recommended taking the Rhine Tour.

Dr. Hetlage moved acceptance of the Rhine Tour. Motion was seconded and carried.

COMMITTEE ON MEMBERSHIP COMMUNICATIONS

Dr. Franklin, Chairman of the Committee, stated that effective membership communications is a problem in all organizations. He indicated that the committee reviewed the methods of communications now used by the MSMA and studied varied types of inner communications employed by other associations. One interesting idea would be the publication of an annual "Blue Book." This would be published in conjunction with our annual roster issue and could contain items of general interest and importance to physicians. The committee recommends considering adding it to the MSMA communications program.

The committee also felt that readership of the Journal might be better if more socio-economic material was added and, also, many *Letters to the Editor* require meaningful answers.

The committee discussed various ways of distributing the *Newsletter* which is the yellow sheet insert in the Journal. It was felt that the *Newsletter* tends to increase readership of the Journal and the committee recommends the expansion of the *Newsletter* to perhaps four pages when available material warrants.

The committee felt that hospital bulletin boards could be of aid in communications if the material is fresh, important and limited to one page. An area of communications the committee deemed vital is the personal contacts of MSMA officers and staff with local medical societies. This offers a chance for local physicians to become better informed on how the MSMA works and what it provides for its members.

The committee also recommends that the new-member pamphlet be revised and updated and mailed to each new member and that staff should investigate other materials that might be of assistance to new members.

The committee recommends the News Media Awards be continued. Finally, the committee recommends that the Editor of the Journal be added to the Membership Communications Committee.

Motion was made, seconded and carried that Dr. Franklin's report be approved and, in so doing, we approve these matters and distribute these to the various committees and commissions for study.

REPORT OF LEGAL COUNSEL

Mr. Noble reported that a summary of the Curteman Case had been forwarded to Mr. McIntyre and that copies had been given to the officers and councilors.

Mr. Noble indicated that the Health Care Foundation suit was pending a setting of date for trial in the Circuit Court of St. Louis County. He indicated that recently interrogatories had been filed by the plaintiffs and that we had furnished them with complete answers setting forth the legal steps in the formation of the Foundation. Mr. Noble indicated that he had asked the attorney for the plaintiffs for at least 60 days notice of the date set for trial in order to line up witnesses and so that there would be no conflicts. He also indicated that he planned to meet with the lawyer for the Foundation in the near future for further cooperative endeavors.

JCAH WORKSHOP

Mr. Fox stated that at the last Council Meeting, it was voted to hold the Mini-Estes Conference on March 1-2, 1973 and the JCAH Workshop would convene when the Mini-Estes Conference adjourns. Mr. Fox stated that since that time, the Joint Commission faculty in Chicago has informed us that this workshop should be on its own merits and not rely on the attendance at some other program. The dates for the workshop have been changed to May 11, 12 and 13 at the Lodge of the Four Seasons. This will be jointly sponsored by the Hospital Association. Mr. Fox asked if the Council would like to reconsider sponsorship for this.

The question of financing was brought up and Mr. Fox stated the Joint Commission had to have 150 advance registrations accompanied by checks for registration fees before they would even have the workshop. Mr. Fox stated that he didn't anticipate any financial deficit on the basis he just described.

Dr. Franklin moved that we co-sponsor with the Missouri Hospital Association the hospital workshop of the Joint Commission on Hospital Accreditation. Motion was seconded and carried.

REPORT OF THE TREASURER

Dr. Gulick, MSMA Treasurer, gave a brief report on the financial standing of the Association, copies of which were distributed to the Council and Officers. He stated that the Association is in good financial condition at the Present time. On motion, duly seconded, the report of the Treasurer was approved.

REPORT OF THE BUILDING COMMITTEE

Dr. Matthews, Chairman of the Committee, reported that we had paid $5,000 down on the new building. He stated that the building would be vacated around October 1. Dr. Matthews indicated that with our present financial condition, we would be able to purchase the building outright and use the building as collateral in securing funds for remodeling.

Dr. Matthews stated that the architectural firm of Pallardy and Evans of Jefferson City has been retained on an hourly basis rather than the standard contract of a percentage of the construction costs.

The committee also approved the selection of the Schell Construction Company of Jefferson City as the contractor. Both the architect and the contractor have worked on the adjoining buildings and the committee felt that this would result in a savings because detailed plans and specifications of the other buildings will be helpful in our plans.

Dr. Franklin moved that the report of the committee be approved. Motion was seconded and carried.

Dr. Bradshaw asked for reflective thinking on a possible solution to some of our medical problems. He indicated that he would like to have thoughts on the idea of having each physician spend some time as a primary physician during his training after graduation and before he continues on in the specialty training he wishes to pursue. This would be an additional period of training in his career before he continues in his residency work.

Motion was made and seconded to table this matter until the next meeting. Motion carried.

Dr. Martin stated that the committee reports had run quite long during this meeting and that a time limit should be put on these reports.

Dr. Martin moved that all reports given to the Council should be limited to 15 minutes, excluding discussion. Motion was seconded and carried.

Mr. Swarens indicated that responses had been received in regard to Resolution #35, which called for the mailing of a card asking physicians to restrict their use of amphetamines. Mr. Swarens stated that to date 1,702 physicians, which is 40% of the membership, had signed the cards. He also stated that the resolution also called for this information to be released to the news media. Mr. Swarens asked whether or not this information should be released now.

Motion was made and seconded to release this information when it reaches 50%. Motion carried.

The Chairman stated that he, on behalf of all those present, would like to thank Dr. and Mrs. Stricker for the fine entertainment on Friday and Saturday.

Mr. McIntyre stated that the Budget Committee meeting would be held on Friday, December 8, and the Council Meeting on Saturday, December 9 and Sunday, December 10. He indicated dates were being held at Ramada Inn, Jefferson City. He said the rates had been raised at the Lodge of the Four Seasons, where last year's December meeting had been held. Dr. Chandler moved that the December Council Meeting be held at the Ramada Inn in Jefferson City. Motion was seconded and carried.

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LEO H. POLLOCK, M.D.

Missouri Medicine in Review

FORTY YEARS AGO

Physicians and hospitals have a new foe to fight in collecting fees for services rendered to persons presumably fully able to pay. We refer to injuries sustained by persons in the numerous automobile accidents on the highways who require medical service and hospitalization. In an address before the Interstate Postgraduate Association in Indianapolis last October, Dr. John J. Moorhead, professor of surgery at Columbia University, declared that Saturday and Sunday road accidents were ruining small community hospitals. "When accidents occur," he said, "The patients are rushed to the small hospital where all its facilities are taxed in giving aid to the injured. Usually, the patients are removed soon afterwards and the hospital receives no fees for its work. This expense should be a part of the state's road or gasoline tax."

Dr. Richard L. Sutton and Dr. Richard L. Sutton, Jr. of Kansas City presented "Snapshots from the Arctic," illustrated by lantern slides and moving pictures before the Jackson County Medical Society on November 29.

TWENTY FIVE YEARS AGO

Edward L. Bortz, M.D., Philadelphia, President of the American Medical Association, will be the speaker at the banquet in honor of Past-Presidents at the 90th Annual Session of the Missouri State Medical Association at the Jefferson Hotel in St. Louis on March 14-17, 1948.

Now that the hunting season is on, Clay Schoenfeld warns in the current issue of *Hygeia,* health magazine of the AMA, to take it easy when you go deer hunting. You're just about as likely to die of a heart attack as of a stray bullet. Almost 40% of the deer-hunting deaths in the United States are due to heart attacks, according to the writer, who is a Madison, Wis. resident. He speaks from personal experience in the north woods, as well as from data compiled by various state conservation departments. Out of 18 hunter deaths in the state of Michigan during the 1946 deer season, he says, "Ten were due to gunshot and eight to heart disease. In Wisconsin, the heart cases actually outnumbered the bullet toll eight to five."

A. Lloyd Stockwell, M.D., Kansas City, presented a paper on "Absorbable Hemostatic Agents in Urological Surgery" at the South Central Section of the American Urological Association which met in Fort Worth, Tex. on October 13-15.

TEN YEARS AGO

The idea of a state hospital to care for the indigent cancer patients of Missouri originated with a St. Louis surgeon, Dr. Ellis Fischel. Doctor Fischel was the humanitarian force behind the enabling legislation passed in 1937 to create the Missouri State Cancer Hospital. As chairman of the first Cancer Commission, the professional supervisory body for the Cancer hospital, he lost his life for his ideal when he was killed in an automobile accident en route to a Cancer Commission meeting in Jefferson City in 1939. The new 104-bed hospital, opened in 1940 in Columbia, was named The Ellis Fischel State Cancer Hospital in his honor. Missouri was the first state west of the Mississippi to support such a humane institution.

The Department of Medicine of the Menorah Medical Center, Kansas City, held its annual A. Morris Ginsburg Memorial Seminar on November 7-8. The guest speaker was Solomon Papper, M.D., professor of medicine and chairman of the department, University of New Mexico School of Medicine.

On October 19, the *Kahoka Gazette-Herald* carried a picture and story of J. R. Bridges, M.D. of Kahoka, who celebrated his 99th birthday on that day. He continues daily practice at his office and attends Masonic Lodge meetings regularly. Doctor Bridges is one of the world's oldest Masons, having been a member for 72 years.

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